

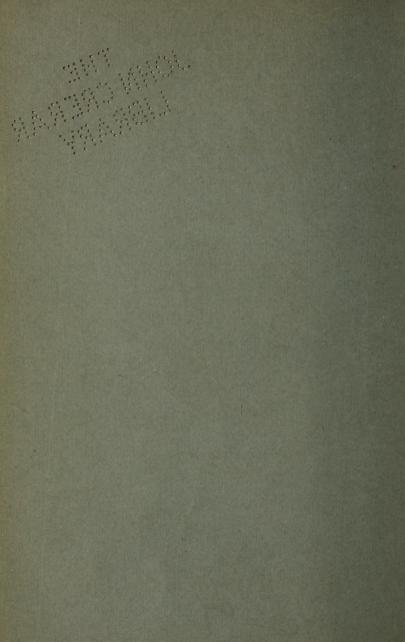
# UNIVERSITY OF SOUTHERN CALIFORNIA BULLETIN

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VOLUME IV MARCH 1909 NUMBER 1



YEAR BOOK for 1908-1909



# UNIVERSITY SOUTHERN CALIFORNIA BULLETIN

VOLUME IV

NUMBER 1



# YEAR BOOK for 1908-1909

With Announcements for 1909-1910

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LOS ANGELES, CALIFORNIA

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# 1909 CALENDAR 1910

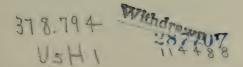
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JUNE	DECEMBER	JUNE	DECEMBER
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## CALENDAR

#### 1909-1910

# The College of Liberal Arts.

1909		
Sept. 13 Sept. 14	Monday Tuesday	Entrance Examinations and Registra- tion for the First Semester.
Sept. 15	Wednesday	Instruction begins.
Nov. 25 Nov. 26	Thursday Friday	Thanksgiving Vacation.
Dec. 20 1910	Monday	Christmas Vacation.
Jan. 2	Sunday	}
Jan. 27	Thursday	Day of Prayer for Colleges.
Jan. 28 Feb. 2	Friday Wednesday	Mid-year Examinations.
Feb. 2	Wednesday	First Semester ends.
Feb. 3 Feb. 4	Thursday Friday	Entrance Examinations and Registra- tion for the Second Semester.
Feb. 7	Monday	Instruction begins for the Second Semester.
Feb. 22	Tuesday	Washington's Birthday.
Mar. 28 April 3	Monday Sunday	Spring Vacation.
June 9 June 14	Thursday Tuesday	} Final Examinations.
June 12	Sunday	Baccalaureate Sunday.
June 16	Thursday	Commencement.
June 16	Thursday	Alumni Reunion and Banquet.
June July		} Six Weeks' Summer Session.



### THE UNIVERSITY.

The University of Southern California was founded in 1879, and was formally opened for students in October, 1880. It includes the following colleges each of which has a distinct faculty of instruction.

College of Liberal Arts.

35th Street and Wesley Avenue. George F. Bovard, A.M., D.D., President. Roy E. Schulz, A.B., Secretary.

College of Medicine.

737 Buena Vista Street. W. Jarvis Barlow, A.B., M.D., Dean. George H. Kress, B.S., M.D., Secretary.

College of Dentistry.

Fifth and Wall Streets.
Lewis E. Ford, D.D.S., Dean.
William Bebb, D.D.S., Secretary.

College of Law.

Exchange Bldg., 3rd and Hill. Frank M. Porter, A.B., LL.B., Dean. Gavin W. Craig, LL. B., Secretary.

College of Music.

35th Street and Wesley Avenue. Walter F. Skeele, A.B., Dean. Charles E. Pemberton, Secretary.

College of Oratory.

35th Street and Wesley Avenue. Beulah Wright, Dean. Gertrude Comstock, Ph. B., Secretary.

College of Fine Arts.

201 N. Ave. 66. William L. Judson, Dean. Pearl Judson, Secretary.

#### College of Pharmacy.

35th Street and Wesley Avenue. Walter T. Taylor, Ph. G., Dean. Charles W. Hill, Ph. C., Secretary.

#### College of Theology.

35th Street and Wesley Avenue. Ezra A. Healy, A.M., D.D., Dean. James Blackledge, A.M., Secretary.

A Preparatory School is maintained in connection with the College of Liberal Arts.

Information concerning any of the colleges, and year-books containing the courses of study, etc., will be mailed upor application to the addresses given above.

#### FOUNDERS OF THE UNIVERSITY.

These names include all the names of the first Board of Endowment Trustees and the first Board of Directors, and hence may be fairly held to represent the founders.

Asahel Morgan Hough; Edward Fallis Spence; Marion McKinley Bovard; Dr. Joseph Pomeroy Widney; G. D. Compton; Robert Maclay Widney; John G. Downey; P. Y. Cool; Charles Shelling; Edwin S. Chase; J. A. Van Anda; F. S. Woodcock; P. M. Green; Stephen C. Hubbell.

#### GOVERNMENT OF THE UNIVERSITY.

The government of the University is committed to a Board of twenty-one Trustees. This Board has the power to elect professors and other officers of instruction, to confer degrees, to manage the property of the University Corporation, and to determine the general policy of the institution.

The President has charge of the educational administration of the University and is chairman of the University Council. The principal administrative officers, other than the President, are the Deans, who have immediate charge of the work of the several faculties.

The University Council is a representative body consisting of the President, and the Dean and Secretary of each of the several colleges. It is the duty of the Council to consider the

courses offered by the several colleges with a view to increasing the efficiency and enlarging the range of University work, encourage original research and adjust all questions involving more than one of the colleges, and to advise the President upon such matters as he may bring before it.

#### ENDOWMENT AND IMPROVEMENTS.

The endowment of the college of Liberal Arts, started a few years ago by the munificent gift of sixty-five thousand dollars by the late Rev. Asabel M. Hough and his wife Anna G. Hough, has steadily grown until it has reached the sum of three hundred and fifty thousand dollars.

Substantial improvements have been made in all of the departments of the University. Many new books have been purchased and placed on the shelves of our Libraries.

The new science halls of the College of Liberal Arts are now well equipped with apparatus strictly up-to-date.

The gymnasium, the three tennis courts, the basketball court, the inclosed athletic field, with its quarter mile cinder path, and the bleachers with thirty-five hundred sittings, furnish ample facilities for physical training and out door sports.

#### ADVANTAGES OF LOCATION.

Los Angeles is the metropolis of Southern California. Its population of about 300,000 represents almost every State in the Union and many foreign lands.

The climate throughout the year is such that tourists from every quarter come to spend a part of the year, and many return to make this their permanent home.

It is the greatest railroad center on the Pacific Coast. Four transcontinental lines are now complete. A network of electric roads connects the city with the numerous beaches, mountain resorts and outlying towns. These are reached by delightful journeys through orange groves and orchards of semi-tropical fruits characteristic of the region.

Los Angeles is known as the Convention City of the West. Every year brings large bodies of people here for the discussion of every kind of public interest known to science, politics, religion and the humanities.

These great conventions afford the student an excellent opportunity to study the subjects of their discussion, while the resident population of the city is sufficiently large to afford important advantages for the study of sociology and kindred subjects.

The diverse view-points of the groups of students in the nine colleges make their association an important educational factor.

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COLLEGE OF THEOLOGY.									
A. Inwood,					202 1	V. St.	Louis St.		
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Edwin Cooper, A.B.,							Treasurer		

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Elizabeth Yoder, Graduate of Northwestern	
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Associate Professor of Electrical Engineer	ing.
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Nancy K. Foster,	. 643 W. 32d St.
Lecturer in English Literature.	
Arley G. Tottenham,	716 S. Flower St.
Instructor in Drawing	

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Adele Stookey, A.B.,	. Hermosa Beach
Instructor in French and Italian.	
01100001 21, 2011010,	2828 Normandie Ave.
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Resident Secretary of the Y. W. C.	
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Resident Secretary of the Y. M. C.	

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Emeritus Professor of Diseases of Chidren.
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Drug Room,
F. C. McKinnie, Ph.G.
Out-Patient Service.
Dr. Decker

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Demonstrator Infirmary.
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Bridge Work.
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Lecturer and Demonstrator, Porcelain Inlays.
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J. M. Choate,
Lecturer on Anatomy, Chief Demontrator of Dissection.
M. Ellis.
Assistant Demonstrator of Dissection.
C. J. R. Engstrom, D.D.S., Auditorium Bldg.
Demonstrator in Prosthetic Technic.
Dr. D. Cave, Lankershim Bldg.
Special Lecturer Clinical Dentistry.
E. L. Townsend, D.D.S., Wright & Calender Bldg.
Special Lectures and Clinics on Porcelain and Electric Fur-
naces.
C. M. Benbrook, D.D.S., Auditorium Bldg.
Special Lecturer on Clinical Dentistry.
J. F. Cook, D.D.S.,
Dental Society Director.

William Bebb, D.D.S.

Superintendent of the College.

L. M. Packard, D.D.S.

Lecturer on Dental Anatomy.

#### COLLEGE OF LAW.

Frank M. Porter, A.B., LL.B., Dean.

Evidence and Bailments.

Gavin W. Craig, LL. B., Secretary.

Elementary Law and Blackstone and Real Property.

Frank R. Willis, LL, B.,

Criminal Law, Evidence and Procedure.

Percy V. Hammon, LL. B.,

Criminal Law, Criminal Evidence and Criminal Procedure.

W. A. Cheney, Ex-Judge Superior Court.

Constitutional Law.

Curtis D. Wilbur, Judge Superior Court.

Wills and Probate Law.

W. P. James, Judge Superior Court. Negligence,

James R. Townsend, Esq.

Patents.

T. W. Robinson, A.M.

Statutory Interpretation, Briefing and the Use of Books.

Hon. Lewis A. Groff,

Agency and Mining Law.

D. K. Trask, Ex-Judge Superior Court.

Private Corporations.

Claire S. Tappan, LL. B.,

Contracts.

Myron Westover, LL. B.,

Commercial Paper.

Walter F. Haas, Esq.,

Municipal Corporations and Public Offices.

George H. Woodruff, Esq.,

Damages.

J. W. Swanwick, Esq.,

Appeals.

Admiralty.

James G. Scarborough, A.B.,

Code Pleading.

W. T. Craig, Ph. D.,

Bankruptey.

John D. Pope, Esq.,

Legal Ethics.

Seward A. Simons, A.B.,

Insurance Law.

H. C. Dillon, M.A.

Common Law Pleading and Equity Jurisprudence.

Frank James, Esq.,

California Lien Law.

Earl Rogers, Esq., D. C. L.,

Advocacy.

Wm. W. Phelps, D. C. L.,

Partnership and Codification.

Albert Lees Stephens, LL. B.,

Justice Court Practice.

Kemper B. Campbell, LL. B.,

Torts.

Frank C. Vaughn, LL. B.,

Equity Pleading.

James W. Taggart, Judge District Court of Appeal,

Domestic Relations, Appeals and Appellate Jurisdictions.

E. W. Camp, A.B., LL.B.,

Interstate Commerce.

W. J. Hunsaker,

Restraint of Trade.

James H. Hoose, Ph. D.,

Logic.

Geo. H. Smith,

Elements of Jurisprudence and American Common Law.

Willoughby Rodman, A.B., B. L.,

International Law.

Warren E. Lloyd, Ph. D., M. L.,

Spanish and Mexican Land and Mining Law, Philosophy of Law.

#### COLLEGE OF MUSIC. Walter Fisher Skeele, A. B., Dean, . . 215 Thorne St. Professor of Pianoforte and Pipe Organ. Abraham Miller, . . . 1729 Hope St., S. Pasadena Voice Culture and Directing. Mrs. Norma Rockhold Robbins, . 3409 South Hope St. Voice Culture Mrs. S. J. Brimhall, . . . . . . 417 W. Ave. 52 Piano. Miss Carrie A. Trowbridge, . . . 1045 35th Place Piano. Miss Lillian M. Arnett, . . . 947 W. 34th St. Piano. Miss Madge Patton, . . . 1210 Valencia St. Dunning System. Charles E. Pemberton, . . . . 678 S. Burlington Violin, Harmony, Counterpoint and Musical Theory. Herr Oskar B. Seiling, . . . Sierra Madre Violin. William H. Mead, . . . . Blanchard Bldg. Flute. Guitar and Mandolin. COLLEGE OF ORATORY. Beulah Wright, Dean, . . . 2905 Sunset Place Professor of Oratory and Speaking Voice. Gertrude Comstock, Ph. B., . . 817 W. 23rd St. Professor of Interpretation, Forensics, Physical Training. . . . 1723 W. 9th St. Elizabeth Yoder, . . Professor of Dramatic Art, Shakespeare. . . 1435 W. 22nd St. Albert B. Ulrey, A.M., Professor of Physiology and Hygiene. James Main Dixon, A.M., L.H.D., F.R.S.E., . Hollywood Professor of English Language and Literature. Dean Cromwell . . . . . 1045 S. Boyle Ave. Director of Physical Education for Men. Stella Webster Morgan, A.B., . . 934 W. 34th St.

Professor of English Literature.

Tully C. Knoles, A.M.,

Professor of History.

#### COLLEGE OF FINE ARTS.

William L. Judson,

Dean.

Arley G. Tottenham.

Professor of Mechanical Drawing.

Elizabeth Waggoner,

Professor of Art Crafts.

Nell Danely Brookers.

Professor of Design and Decoration.

Olive Newcome.

Professor of Art Crafts.

Pearl Judson,

Secretary.

Benjamin C. Brown.

Examiner.

John W. Nichols. Examiner.

#### COLLEGE OF PHARMACY.

Walter T. Taylor, Ph. G.,

Dean and Professor of Pharmacy.

Charles W. Hill. Ph. G.,

Professor of Materia Medica and Pharmacognosy.

Laird J. Stabler, M. S., Ph. C.,

Professor of Chemistry and Toxicology.

Albert B. Ulrey, A. M.,

Professor of Botany.

Arthur Maas, Ph. C.,

Associate Professor of Pharmacy.

Ethel W. Graves, A. M.,

Assistant Professor of Inorganic Chemistry.

Andrew C. Life. A. M.,

Assistant Professor of Microscopy.

Howard A. Peairs, A. B.,

Lecturer on Pharmacal Jurisprudence.

Irwin H. Miller, B. S.,

Lecturer on Food and Drug Adulterations.

#### Dean Cromwell,

Director of Physical Education.

#### COLLEGE OF THEOLOGY.

Ezra A. Healy, A.M., D.D.,

Dean. Historical and Systematic Theology.

Eli McClish, D.D.,

Christian Evidences.

Rev. James Blackledge, A.M.,

Hebrew Language.

Robert McIntyre, D.D.,

Homiletics,

Matt S. Hughes, D.D.,

Pastoral Theology.

John G. Hill, A.M., S.T.B., English Bible.

Festus E. Owen, A.M.,

New Testament Greek.

James Main Dixon, A.M., L.H.D., F.R.S.E., Professor of English Literature.

George B. Smythe, D.D.,

Lecturer on Christian Missions.

# The College of Liberal Arts.

#### ADMISSION TO THE FRESHMAN CLASS.

1.-Admission by Certificate.

Candidates for admission to the freshman class must be at least sixteen years of age and must present evidence of good moral character. They must also give, either by certificate or by examination, evidence of preparation in 15 units of preparatory subjects selected from the general list of subjects described on pp. 28-32. These 15 units must be made up of the following:

English,						2	units*
A Foreign	Lang	uage	, .			. 2	
Science,						1	
Algebra an	d Pla	ne	Geom	etry,		 . 2	
U. S. Histo	ry an	d Ci	vics			1	
Electives,						7	

The electives are determined entirely by the requirements for admission to the college course which the student desires to pursue.

For admission to the Engineering Course the 15 units must include the following:

English,						2 units
A Modern Lauguage,						2
Chemistry, .						1
Physics,						1
Elementary Algebra,						1
Advanced Algebra,						1
Plane Geometry,						1
Trigonometry and Sc	lid	Geo	met	ry,		1
U. S. History and	Civ	rics,				1
Freehand Drawing,						1
Electives,			,			2

<sup>\*</sup>The term "unit" is used to denote a preparatory subject studied through one school year with five class exercises (or the equivalent) per week.

Candidates who have completed a regular course in the Preparatory School of this University, or in an accredited high school, may be admitted to the College of Liberal Arts without examination, on presenting a certificate signed by the principal. Unconditional credit will be given only for entrance subjects in which the candidate is specifically recommended. Recommendations will be accepted from any school accredited by this University, Leland Stanford Junior University, or the University of California. The faculty reserves the right, however, to require an examination upon any or all of the studies set for entrance, whenever there is doubt that the preparation has been sufficient. To insure entrance without examination credentials should be presented as early as possible before registration.

#### 2.-Admission by Examination.

The regular examination for admission will begin Monday, September 13, 1909, when candidates will be examined in all the required admission subjects not covered by certificate from an accredited school.

#### 3.-Conditional Admission.

Candidates may be conditionally admitted to the freshman class, if they are not deficient in more than twenty semester hours (two units) of preparatory work, but each case is referred to a faculty committee and only by vote of this committee can such admission be gained. They must, however, remove all such conditions before they may obtain junior standing.

#### Preparatory Subjects.

The following items will serve to indicate both the kind and the amount of work expected in the different preparatory subjects accepted for admission, as well as the units of credit allowed for the same.

1. English. A short essay on an assigned subject will be called for, with the purpose of testing accuracy in spelling, punctuation, division into paragraphs, and power of expression in clear and correct English.

The candidate will also be required to give evidence of a thorough study of elementary rhetoric and classic myths; and will be tested as to his knowledge of the subject-matter, form and structure of the following works (or their equivalent):

Scott's Lay of the Last Minstrel and Ivanhoe; Hawthorne's Tales of the White Hills; Selections from Irving's Sketchbook; Lowell's Vision of Sir Launfal; De Coverly Papers; Coleridge's Ancient Mariner; George Eliot's Silas Marner; Carlyle's Essay on Burns; Macaulay's Essay on Warren Hastings; Tennyson's Idylls of the King; Shakespeare's Merchant of Venice and Julius Caesar. (2 units.)

2. English Literature. With outline history of its development. Chaucer's Prolog; Gray's Elegy; Wordsworth's Tintern Abbey, and Odes on Intimations of Immortality and Duty; Milton's Minor Poems; Shelley's Odes To Night and To a Skylark; Keats Ode to a Nightingale; Browning's Epilogue to Assolando and Rabbi Ben Ezra; Burke's Conciliation; Webster-Hayne Debate; Shakespeare's Midsummer-Night's Dream and Macbeth. (1 unit.)

[Note: When a candidate shall offer, in addition to the above, an equivalent amount of other classics such as may be acceptable to the department of English, another unit will be granted.]

- 3. Elementary Algebra. This should include the following subjects: The four fundamental operations with emphasis placed on the type-forms in multiplication and division, factoring, highest common factor, and lowest common multiple, fractions and fractional equations, simultaneous equations of the first degree, the binomial theorem for a positive integral exponent, evolution, theory of exponents, radicals, quadratic equations, and the solution of problems involving the various classes of equations. Emphasis should be placed on factoring and on the solutions of equations. (1 unit.)
- 4. Advanced Algebra. This should include the following subjects: Mathematical induction; the proof and the use of the remainder and the factor theorem; the binomal theorem for a positive integral exponent; evolution, including the extraction of any root of algebraic polynomials, and also of arithmetic numbers; theory of exponents; complex numbers; radicale, and irrational equations; theory of quadratic equations; simultaneous quadratics; inequalities; ratio, proportion and variation;

arithmetic, geometric and harmonic series. Emphasis should be placed on the solution of equations by factoring, and on the demonstration of laws and principles. (1 unit.)

- 5. Plane Geometry. This includes the usual theorems and problems of elementary plane geometry. An important part of the work should be the solution of original exercises including problems in mensuration. (1 unit.)
- 6. Trigonometry and Solid Geometry. The development of the general formulae of elementary plane trigonometry; the theory of logarithms and the use of logarithmic tables; the numerical solution of plane triangles, and of simple problems in heights and distance. The fundamental propositions of solid geometry and especially those of spherical geometry. (1 unit.)
- 7. Chemistry. Laboratory and text-book work for one school year, such as outlined in Remsen's Introduction to the Study of Chemistry, or Newell's Experimental Chemistry. At least four hours per week throughout the year is required of actual laboratory practice in order to complete the amount of laboratory work desired. (1 unit.)
- 8. Physics. The equivalent of one year's work, including both laboratory and text-book work. Accurate notes of the laboratory work should be kept. Gage's Elements, or Carhart and Chute's High School Physics will serve to indicate the amount of text-book study required. (1 unit.)
- 9. Botany. A study in the laboratory and field of types of plant groups. Drawings and notes made directly from the specimens must be submitted as evidence of the character of the work done. A full year's work. (1 unit.)
- 10. Zoology. One year's work on the structure, relationship and habits of animals. Laboratory note-books with drawings will be required. (1 unit.)
- 11. Physiology. An equivalent of Martin's Human Body,
  —Shorter course. (1 unit.)
- 12. Physical Geography. The study of one of the leading text-books supplemented by at least forty exercises in indvidual laboratory work. (1 unit.)
- 13. Elementary Latin. For the requirements of Elementary Latin an accurate pronunciation is necessary, a thorough knowledge of regular forms and principles of syntax, a vocabulary of

about fifteen hundred words, and the ability to translate easy prose at sight, and to write simple sentences. These attainments can be secured from the careful study of an elementary text-book and four books of Caesar, together with oral and written composition and occasional practice in sight translation. The examination in composition in 1909-1910 will be based on the second book of Caesar's Gallic War. (2 units,)

- 14. Advanced Latin. For the requirements of Advanced Latin the ability to translate at sight portions of Cicero's orations and Vergil's Aeneid is necessary, familiarity with the principles of the Latin hexameter and the ability to translate a passage of connected English based on Cicero. These attainments can be secured from the careful study of six of Cicero's orations and six books of Vergil's Aeneid, together with very thorough drill in oral and written composition. It is expected that a certified composition book will be presented for entrance credit. The examination in composition in 1909-1910 will be based on the oration Pro Archia. (2 units; without the composition, 1 unit.)
- 15. Elementary Creek. Grammar and Lessons; Anabasis, book I-III; prose composition. (2 units.)
- 16. Advanced Greek. Anabasis book IV; Iliad, books I-III; prose composition; sight reading; review of the Grammar. (1 unit.)
- 17. German. A knowledge of the inflections of articles, nouns, adjectives, pronouns, weak verbs and usual strong verbs; also of the use of the modal auxiliaries, the common preposition, the simpler uses of the subjunctive, and the order of words; the reading and translation of stories and plays, such as Storm's Immense and Benedix's Der Prozess; translation of easy English into German, translation at hearing and pronunciation. (2 units.)
- 18. French. A knowledge of the essentials of grammar, including the inflections of nouns, adjectives, pronouns, regular and common irregular verbs; the use of personal pronouns and the elementary rules of syntax; ability to pronounce accurately and to read smoothly; translation of modern stories and plays, such as About's Le Roi des Montagues and Labiche and Martin's Le Voyage de M. Perrichon; translation at hearing and

at sight; translation of easy English into French. (2 units.)

- 19. Spanish. Grammar, Garner, Monsanto or De Tornos; reading from Matzke's Spanish Readings, Knapp's Spanish Readings, Pepita Jiminez; translation of easy English into Spanish, and simple conversation in Spanish. Special importance attached to a knowledge of Spanish verbs. (2 units.)
- 20. English History. Coman and Kendall or an equivalent. (1 unit.)
- 21. Grecian and Roman History. Myers, or an equivalent. (1 unit.)
- 22. Mediaeval and Modern History. Myers, or an equivalent. (1 unit.)
- 23. United States History and Civil Government. Channing, and Fisk, or an equivalent. (1 unit.)
- 24. Freehand Drawing. The study of light and shade and perspective by drawing and shading with pencil from geometric and simple life objects. (½ to 1 unit.)
- 25. Mechanical Drawing. The use of drawing instruments in line work, the construction of geometrical problems, and simple detail drawing. (½ to 1 unit.)

Note—In the case of students graduated from a recommended high school credit may be allowed for such subjects, not designated in this list, as are recommended by the principal and approved by the University faculty.

Candidates who offer subjects in Science will be required to present their note-books in the same.

# ADMISSION TO ADVANCED STANDING.

Students from other institutions of recognized collegiate rank may be admitted to such standing and upon such terms as the Faculty may deem equitable, upon presentation of letters of honorable dismissal. Every such candidate is required to present a catalogue of the institution in which he has studied, with a full statement, duly certified, of the subjects he has completed, including subjects passed at entrance as well as those credited. The faculty reserves the right to determine, after a test of at least one semester, the amount of credit which a student may receive.

## ADMISSION AS SPECIAL STUDENTS.

Persons of maturer age who desire to take up special work in one department, or in one subject with its related branches, may be admitted as special students, without becoming candidates for a degree; but they may become candidates by satisfying the entrance requirements for a regular course. Such students come under the same regulations as regular undergraduates, and forfeit their privileges by failure to maintain a good standing.

## MATRICULATION AND REGISTRATION.

On or before the appointed registration days, in September and February, each student must register at the Registrar's office, and must enter upon a study card the subjects desired for the semester.

The study card, properly filled out and signed by the major professor and the Registrar, must be filed in the office not later than one week after the last appointed registration day. Late study cards will be accepted only upon the payment of a special fee of one dollar. A student desiring to enter any class must present his study card to the instructor for enrollment.

In the choice of subjects, all work necessary to remove conditions must be provided for first; and required subjects must take precedence of elective subjects.

Credentials will be considered at any time of the year, but since in general candidates can not be assured of admission to the University without examination, it is important that credentials be forwarded as early as possible. Blanks for admission may be obtained by application to the Registrar's office.

#### GRADUATION.

# THE DEGREE OF BACHELOR OF ARTS.

The College of Liberal Arts offers as many courses from which the student may elect as there are departments in which a major is offered.

Each course the student may pursue is designed to give a

liberal education and, except in the Engineering course, leads to the degree of Bachelor of Arts (A.B.).

The student must complete one hundred twenty semester hours of college work (exclusive of the requirement in Physical Education), which includes the required subjects, a major in one department, and a related minor.

A semester hour means one exercise a week throughout a semester. It is intended that each hour of credit shall represent, for the average stuednt, one hour of recitation or lecture, and two hours of preparation or subsequent reading per week, or an equivalent amount of work in laboratory courses.

Fifteen hours per week of recitations or lectures, or their equivalent in laboratory work, constitute an average semester's work. Students may register for as few as thirteen or as many as eighteen hours by making application to the Registrar.

The end of the sophomore year marks a differentiation in the work of the undergraduate course. In the junior and senior years the aim is toward University work in the true sense.

# Required Subjects.

In all the courses except in the Engineering Courses, in which the student is a candidate for the bachelor's degree he must complete work as follows

English, Rhetoric I., one year, six hours.

Science, one year, eight hours. (The science may be Chemistry, Zoology, Physics or Botany.)

Mathematics, one year, six hours.

Philosophy, one year, six hours.

Foreign Language, two years, twelve hours. (The language may be Latin, Greek, German, French, Spanish or Italian.)

History or Economics, one year, six hours.

Physical Education, four hours.

The Freshman year should be devoted to the completion of thirty hours of these required subjects.

In the Engineering Courses the work of the four years is required as outlined under Engineering Courses.

## Major and Minor Subjects.

Each under-graduate student must select the work of some one department as his major subject, but the selection may be deferred until the second year. The requirements for major work, which range from a minimum of twenty-four to a maximum of thirty hours are stated elsewhere under Courses of Instruction. An equivalent of ten hours' work must be taken in a related subject, known as the minor subject, and selected with the approval of the major professor.

Where a student who has already selected his major subject desires to change it, and is able to meet the requirements of the new major subject, the change can be made, if approved by the professor of the old and new major subjects.

## Elective Subjects.

Except for the above required subjects, and the requirements of the major and minor subjects the work required for graduation is elective; but the student will confer with the professor of the major subject, as well as with the President of the University, in selecting such subjects as bear some useful relation to the course he is pursuing.

# CLASSIFICATION OF STUDENTS.

Students who have no entrance conditions, and who have completed thirty semester-hours of the freshman year, are classed as sophomores.

Those who have completed sixty semester-hours are classed as juniors.

Those who have completed ninety semester-hours are classed as seniors.

Students who have completed one hundred twenty-four semester hours, including all required work, and a major in one department with a related minor are entitled to receive the degree of Bachelor of Arts.

## ABSENCE FROM EXERCISES.

1. Excuse must be rendered for all absences from required exercises.

- 2. A student who is absent during a semester from more than one-tenth of the whole number of recitations or laboratory periods held in any subject shall be required to pass a special examination in that subject.
- 3. Where a student is absent from more than one-sixth of the whole number of recitation or laboratory periods, held during a semester in any subject, his registration in that subject is thereby cancelled. In case of such cancellation, however, if the student can show cause for his absence, and if his previous standing be such as to indicate that he can make up his loss and maintain a satisfactory grade of work in the subject, he may present his case to the Faculty and have his registration restored.

In applying this rule absence from the first or last recitation in a study, or consecutive absence in which either the first or last recitation is included, will be counted each as two absences.

4. Students are required to attend three-fourths of all chapel exercises.

## EXAMINATIONS AND GRADES.

Regular examinations are held at the close of each semester in the studies that have been pursued in different classes. After the examinations, the parent or guardian of every student receives from the office a report, giving the student's standing for the semester. The general character of the work of the students in their several subjects is indicated by one of six grades, ranging from grade A, denoting the highest excellence, through B, C, D, E, in a descending scale of merit to F, which signifies failure to pass.

A student whose work is a subject is marked conditioned or incomplete is delinquent in that subject. Such delinquency must be made up, in such manner as the instructor may determine, before the close of the year next after that in which the delinquency occurs. If the delinquency be not thus made up, the student is required to take the subject again with a class before he may receive credit for the same. A grade F may be removed only by taking the subject in class again.

When a student has incurred a condition or a failure in a

subject he may not register for more than thirteen hours of new work in the following semester.

### OPTIONS IN THE PROFESSIONAL COLLEGES.

When seventy-two hours (including all required work) have been made in the College of Liberal Arts, a student wishing to enter upon his professional studies before graduation from the College of Liberal Arts, may take the studies of the first year in the College of Medicine, and may receive the degree of Bachelor of Arts upon the satisfactory completion of three years' work in the professional course. Students electing this course are supposed to have completed a course similar to course C. or D. in the Preparatory School of the University, that is, requiring Drawing, Chemistry and Physics. At least one year of Latin is also required. (Any of these subjects not offered for entrance should be taken the first year.)

The required subjects in the College of Liberal Arts are the same as those for the regular candidate for the degree A.B., except that Zoology should be the elected Science, and German, the elected Language (provided Latin has been offered for entrance.)

The Pre-Medical Course, (including required subjects) is outlined as follows

Freshman Year.

English, Rhetoric I., throughout the year, 3 hours.

Science, Zoology, throughout the year, 4 hours.

Mathematics, throughout the year, 3 hours.

Language, German (if Latin has been offered for entrance) throughout the year, 5 hours.

History or Economics, throughout the year, 3 hours.

Total, 18 hours per semester.

Sophomore Year.

Philosophy, Psychology, throughout the year, 3 hours.

Language, German, throughout the year, 3 hours.

Elective, (Biology, English and History specially recommended), throughout the year, 12 hours.

Total, 18 hours.

The regulations for the current year shall prevail concerning fees.

When 94 hours (including all prescribed work) have been made, and of these not less than 72 in the College of Liberal Arts, the student may take the studies of the first year of the College of Law, and may receive the degree of Bachelor of Arts upon the satisfactory completion of two years in the professional course.

# THE DEGREE OF BACHELOR OF SCIENCE IN THE EN-GINEERING COURSES.

The degree of Bachelor of Science in Civil Engineering is conferred upon such candidates as may successfully complete the four years' course in Civil Engineering.

The degree of Bachelor of Science in Electrical Engineering is conferred upon such candidates as may complete the four years' course in Electrical Engineering.

## THE DEGREE OF MASTER OF ARTS.

The degree of Master of Arts (A.M.) is conferred upon graduates of the College of Liberal Arts of the University and upon others who have had an equivalent training elsewhere on completion of an approved course of graduate study equivalent to thirty semester hours.

At least sixteen semester-hours of the work offered for the Master's degree must be chosen beyond the baccalaureate requirement of the department in which the candidate has previously completed the under-graduate major work. This advanced work will be the major subject. At least six semester hours must be taken in some related department.

The Master's degree may designate the special course pursued—e. g., Master of Arts in Science.

Candidates must register not later than the first Tuesday in October next preceding the date of the final examination.

A thesis embodying the results of investigation on an approved subject in the major department must be submitted and be approved by the Committee on Graduate Study before the candidate may be recommended for a degree.

The subject for the thesis must be submitted to the Faculty for approval through the major professor not later than January 10, and the completed thesis not later than the last Saturday in May, of the year in which the degree is desired. The thesis must be typewritten on paper 8½x11 inches in size, and a copy of the same deposited in the Library.

# THE DEGREE OF MASTER OF ARTS AND THE DEGREE OF DOCTOR OF MEDICINE.

Upon students who complete the course in the College of Medicine of the University after receiving the Bachelor's degree from the College of Liberal Arts or other institutions approved by the College, the degree of Master of Arts will be conferred on the following conditions:

- 1. A candidate for the degree of Master of Arts who is at the same time pursuing the regular course in the College of Medicine must matriculate in the College of Liberal Arts at least two years before receiving the Master's degree. The degree of Master of Arts may then be granted at the same time the candidate receives the degree of Doctor of Mcdicine.
- 2. The candidate's research work must be planned in conjunction with the Committee on Graduate Study in the College of Liberal Arts.

Reports of progress in the research work shall be made at such times as may seem advisable to the Committee. The results of such work must be embodied in a thesis approved by the Committee on Graduate Study.

3. The regulations of the College of Liberal Arts for the current year shall prevail concerning fees and thesis.

# THE DEGREE OF CIVIL ENGINEER AND THE DEGREE OF ELECTRICAL ENGINEER.

The professional degrees of Civil Engineer and Electrical Engineer are conferred on graduates of this University in the Civil Engineering and Electrical Engineering courses respectively, on the satisfactory completion, in residence, of one year of graduate study, or on having been engaged in the active practice of their profession for at least three years, two of which shall have involved responsibility, and the presentation of an approved thesis showing ability to do independent work.

### EXPENSES.

## Undergraduate Study.

Tuition per semester, payable in advance.	35.00
Tuition per year (two semesters) if paid	
in advance	67.00
Tuition for six to ten hours per semester.	25.00
Tuition for five hours or less, per semester 1	17.00
Gymnasium and physical education (allow-	
ing free admission to all inter-class	
contests), required of all students, per	
semester	2.00
Gymnasium and physical education with-	
out other studies, per semester	3.00
Registration fee included in the above, but	
	5.00
Diploma fee	5.00
Laboratory fees, per semester:	
Each course in Chemistry requiring lab-	
oratory work	8.00
Assaying	0.00
Physics:	
1 and 2 each	4.00
3 Mechanical	4.00
4 Shop 4.00 to	6.00
Electrical Measurements	6.00
Electrical Engineering:	
2 and 7 Dynamo Laboratory, each	გ.00
Each course in Biology requiring lab-	
	4.00
Surveying, field work, per semester 2	2.50

An account is kept of breakage and an additional charge made therefor.

An additional deposit of five dollars to cover breakage is required in Chemistry. This deposit, less cost of breakage, is refunded at the end of the year.

Students who are recommended by a quarterly conference as acceptable candidates for the ministry; young women who are recommended for the work of deaconess by a quarterly con-

ference and by the Conference Board of Deaconesses; and the sons and daughters of ministers in the regular work of any evangelical denomination, may have their tuition fee reduced to one-half the regular rate.

A discount of ten per cent. of the tuition will be allowed when two or more students enter from the same family.

Tuitions paid in advance will be refunded proportionately should the student be forced to leave school on account of sickness. No refund will be made for an absence of less than half a semester

# Graduate Study.

Tuition per semester, payable in adva	nce\$35.00
Registration fee, included in above	10.00
Diploma fee	

Students who have received the Bachelor's degree from the University of Southern California will pay only ten dollars per semester and the diploma fee.

The Hodge Hall and University Boarding Clubs furnish board for young men at very reasonable rates. Information concerning membership in these clubs can be obtained upon application.

A dormitory is provided for the young ladies, where wholesome board and cozy rooms can be obtained at reasonable rates.

Board and furnished rooms can be secured in private families at from three to seven dollars per week. Furnished rooms, accommodating two students, cost from four to twelve dollars per month.

Other expenses incident to college life vary with the habits and circumstances of the student. They are not of necessity so great as to be burdensome to persons in moderate circumstances.

The Young Men's Christian Association conducts a free rental bureau for the benefit of all students and has all available rooms in the vicinity of the University campus listed and on file. The Young Men's Christian Association and the Young Women's Christian Association also conduct an employment bureau for the purpose of aiding needy and worthy students who are desirous of earning a part of their expenses while in school. Besides the odd jobs, permanent positions are secured for students. The general secretary of either association will

be glad to answer any requests for information addressed to them.

### GENERAL INFORMATION.

The College of Liberal Arts of the University of Southern California is situated in Los Angeles, about three and one-half miles southwest from the business section of the city. The College buildings are accessible by three lines of street cars, the Main Street, University and Los Angeles Interurban lines. This is one of the most beautiful and rapidly growing residence portions of Los Angeles. The campus, comprising ten acres, has been improved by cement sidewalks and street grading on all sides, and a lawn in front of the main building. The University Methodist Episcopal Church is located near the campus, and is one of the most prosperous churches in the city. The Baptists and Presbyterians also have churches in the near vicinity. These advantages, together with fine public school privileges, make the University section of the city a very desirable place of residence for families seeking educational opportunities.

# Religious Privileges.

The moral atmosphere surrounding the student is exceptionally good. The Young Men's Christian Association and the Young Women's Christian Association are active and effective in social and religious life.

In addition to the daily chapel exercises, courses of special sermons are delivered from time to time. These privileges constitute a good Christian atmosphere in which to lay the foundation of character. Students are expected to attend some church each Sabbath, and are advised to join some Sunday class for the study of the Bible.

The University provides, during the College year, a free course of lectures dealing largely with biblical subjects.

# Ladies' Auxiliary.

This organization, formed during 1906-1907 of more than thirty ladies interested in the welfare of the University, has been actively engaged in furthering the interests of the University.

# Literary Societies.

The Aristotelian Literary Society for men is the oldest of the societies connected with the College. It has a large and well furnished hall in which to hold its meetings.

The Comitia, also for men, is in a flourishing condition.

The Athena and Clionian Societies are for young women. They have finely furnished halls, and are doing excellent work.

# Library and Reading Room.

The library is large and well lighted, carpeted, and furnished with shelving sufficient to hold about ten thousand volumes, with new tables and chairs for the convenience of the students. The number of volumes actually accessioned, public documents, and pamphlets, is nine thousand. The largest recent addition to the library is the "Dean George Cochran, D. D., Memorial Library," placed in the University by his son, George I. Cochran. Volumes chosen with special care to meet the needs of the various departments of the University have been added to the library during the year.

### The Museum.

An extensive collection of specimens in mineralogy and geology has been accumulated during the past years, by donations and purchase. Professor Dickinson, the first curator, opened the museum and classified it, making many donations from his own excellent private collection.

A few years ago the trustees purchased from Dr. Stephen Bowers a large collection of geological, mineralogical and archaeological subjects.

The Rev. C. R. Pattee, D. D., has donated about five hundred species of West Coast shells, a valuable geological, paleontoligical, mineralogical and conchological collection.

The late Mrs. Mary Wright has bequeathed to the University a very valuable collection of geological specimens.

# Physical and Electrical Engineering Laboratories.

The departments of Physics and Electrical Engineering occupy nine rooms on the first floors of the main building and Science Hall. These have been planned and equipped exclusively for the departments and are suited to the purpose for which they are used.

The Laboratories set apart for the Departments consist:
(1) General Physical Laboratory. (2) Electrical Laboratory.
(3) Photometry room. (4) Physical Optics. (5) Dynamo and Motor room. (6) Research room. (7) Shop. (8) Battery room.

The equipment is furnished by the best American and European makers. It is of recent purchase—modern and best quality. The department of General Physics is very complete. For advanced work in Heat and Light there are several pieces of fine apparatus. In Mechanics and Electricity there is ample for advanced work of high order. Special mention may be made, (1) Apparatus of precision by Gartner & Co.; (2) Resistance Boxes, Meter & P. O. Bridges, Potientiometers, Dynamometers, Standard cells, Ballistic and moving coil Galvanometers by Leeds Northrup Co.; (3) Weston Standard Ammeters and Volmeters, Permeaters by Nalder Bros., London, etc.; (4) Spectrometers, Spectrophotometers, prisms and gradings; (5) Direct current and Alternating current generators, Direct Current and Induction motors, 2. Rotary converters, Transformers, Meters, Switchboards and Switching devices.

The General Laboratory is furnished with a number of Standard reference works on Physics.

# The Chemistry Building.

The department of Chemistry occupies the new building erected in the southern portion of the campus during the summer of 1907. The laboratory for general chemistry will accommodate one hundred ten students; that for quantitative chemistry forty students; that for organic chemistry twenty-five students. The laboratories are thoroughly equipped with modern laboratory tables, water, gas, apparatus and chemicals; they contain a large number of hoods and all of the conveniences of a modern laboratory. The balance room is a separate room, well lighted and equipped with twelve fine analytical balances. The store-room is accessible from the different working laboratories and is supplied with a large quantity of apparatus and chemicals of the best make. A special research

laboratory accommodating twenty-five students is thoroughly equipped with storage batteries for electro-chemistry, also with combustion apparatus and special apparatus for determining molecular weight. Another laboratory is equipped for investigations on oil and gas. The equipment consists of stills, hydrometers, viscometers, Atwater's bomb calorimeters for heat determination, Junker's patent gas calorimeters, Hempel's gas apparatus, Elliot's sulphur apparatus and a thermo-cleetric pyrometer. There are also four additional research laboratories.

# Assay and Metallurgical Laboratory.

This laboratory occupies a large room in the new Chemistry Building. The equipment consists of rock crushers, ore grinders of several kinds, amalgamating fans, etc., all driven by electricity. The furnaces are of the latest type, using gas for fuel. The equipment includes all the necessary apparatus for all kinds of assay work. The equipment includes apparatus for concentration and amalgation tests, as well as a complete cyanide and chlorination plant. Special facilities are afforded for the electrolytic-reduction processes. The laboratory is modern in every detail.

# The Biological Laboratories.

The entire second floor of the new north wing of the main building is devoted to the biological laboratories and lecture room. The laboratories are so planned that each student has abundant light, 110 feet of desks face immediately to the north. Each student is supplied with a heavy single desk of slash grained pine, containing two drawers and microscope locker, each with Craig combination locks.

The Zoological Laboratory, 34x45 feet, contains now forty-seven single desks and a large demonstration table 4x11 feet with drawers and cupboards on each side for supplies. The laboratory is provided with blackboard, glass cases for books, reagents and specimens; a sink, aquarium and drip for keeping living specimens. Each student is furnished a compound microscope, BA 2 or BB 2, dissecting instruments and necessary materials for dissection and study.

The Botanical Laboratory is thirty by forty-five feet. It contains forty-four single desks with drawers, locker and Craig combination locks for each; a large demonstration table; cases for twenty thousand herbarium specimens, books and supplies; blackboards, sinks, aquarium and drip. A compound microscope, dissecting instruments and materials are furnished each student.

The Laboratory for Bacteriology and Physiology is 29x46 feet. facing the north. It is supplied with autoclay, Arnold and hot air sterilizers, incubators, glassware and all other necessary equipment for work in bacteriology. There are thirty-one single desks in this laboratory, a large domenstration table, two hoods and cooling chamber, sink, tank, tables, cupboards and case for reagents and supplies. All the necessary materials, apparatus and instruments including BB8 Bausch and Lomb microscopes are furnished the student. For Physiology the laboratory is supplied with all the necessary reagents and apparatus such as microscope, haemocytometer, dissecting instruments, etc., for successful laboratory work. A complete set of the Harvard Physiological apparatus has been added. Histology and Embryology the student is supplied with BB8 microscope and has the use of the Minot automatic rotary microtome, Bausch and Lomb's automatic laboratory microtome, and all reagents necessary to carry on successfully this work.

The research laboratory, 15x17 feet, adjoins the office of the department which is also 15x17 feet. The equipment of these rooms is such as adapts them to advanced work along special lines. The best microscopes of German and American make are available, including Bausch and Lomb, CC8, Zeiss IIa, with achromatic and a set of apo-chromatic objectives with compensating eye pieces. Other microscopes of the Leitz and Spencer types, also imbedding baths, centrifuge, camera, numerous microscope accessories and instruments are provided.

The lecture room is 32x36 feet with raised seats. It has a seating capacity of about two hundred and is provided with sky light and fitted with screens for darkening to adapt it to the use of the electric projection apparatus and stereopticon which form part of the equipment. The lecture desk which is fitted with drawers and supported can be adjusted instantly

for gas or water for demonstration purposes. This room as well as all others is well supplied with electric lights.

The wide halls have been provided with glass cases in which are placed a large collection of birds, mollusks and alcoholic specimens for demonstration and study. The collection of mollusks is very complete, representing over eighteen thousand specimens.

# Athletics and Physical Culture.

The Faculty of the College of Liberal Arts, recognizing that physical culture is both hygienic and educative, desires to encourage every reasonable effort in the direction of physical development consistent with strong manhood and womanhood. On its hygienic side it should aid the body in all its functions, develop a symmetrical form, correct deformity as far as possible, and afford recreation. In its educative function it should afford the discipline necessary for self-control, both mental and moral.

There are two active tennis clubs with three well kept courts.

# Gymnasium and Athletic Grounds.

Athletic sports are encouraged for their value in developing the body, in furnishing a means of pleasant recreation, as well as a source of social and ethical culture, and in cultivating the spirit of co-operative enterprise.

The gymnasium has been fitted with appliances for the proper development of the body. The necessary apparatus of the newest and most approved designs has been provided. The director has made preparations for the training in the gymnasium of both the young men and young women, who will have separate lockers and baths and use the building at different periods of the day. The students have all the advantages of the gymnasium, with baths, lockers and dressing room accommodations.

A complete equipment is provided for each form of exercise. Galleries will afford audience room for special gymnastic exercises when such are open to the public.

Each student, on entering the department, undergoes a thorough physical examination, in order that his physical condition may be known to the director, and suitable exercise prescribed. Various strength tests and measurements are given; the heart, lungs and eyes are examined, and the utmost caution used in the advice given regarding individual exercise. One examination during each semester is required, the latter demonstrating any improvement or change in the student's physical condition. Anthropometric cards and charts are platted for students when desired.

## Athletic Contests.

All athletic and team contests are under close supervision of the director and no student is permitted to compete in games or contests whose physical examination shows that he or she is unfit

Any person who desires to enter athletic contests must attain a certain standard of scholarship before being permitted to participate.

# Gymnastics for Women.

Before entering upon this training every young woman is given a thorough physical examination by the director, Miss Vanderpool, in order that only such exercises may be given as are suited to the student's individual needs. If owing to any physical inability to take the work with the regular classes it seems necessary to take special corrective work, private instruction may be arranged for.

The regular course includes gymnastics, athletics and physical culture. A combination of the Swedish and German system of gymnastics is used.

The gymnasium is well equipped with apparatus. All work must be done under the supervision of the Director,

The Athletic grounds are adjacent to the gymnasium and participation in out-door sports is expected of all young women taking physical training. They may elect tennis, volley-ball, or basket ball. Steps are being taken to secure a hockey field, and it is hoped that hockey will soon be one of the regular out-door sports. The University basket ball team is a member of the Young Womens Basket Ball League of Southern California, and the young women who show greatest proficiency in basket ball are chosen to represent the University in intercollegiate games.

Students are required to provide themselves with a special suit for gymnasium exercises. The Director must be consulted in this matter, in order that there may be uniformity of costume.

# Scholarships.

# The Hugh Johnston Scholarship.

This scholarship was founded by Mrs. Anna H. Johnston, of Pasadena, in memory of her deceased husband, and is for the benefit of needy students. Mrs. Johnston will name the incumbent when she desires. Otherwise this will be done by the authorities of the University.

# The Spence Scholarship.

This scholarship was founded by the Hon. E. F. Spence in his life time, and is devoted to the use of needed students in the San Diego district, upon the recommendation of the District Superintendent of that district.

# The A. C. Hazzard Scholarship.

A thirty-year scholarship founded by Rev. A. C. Hazzard, of Whittier, for the benefit of students preparing for Christian work.

# The A. M. Peck Scholarship,

Founded by A. M. Peck of Compton.

# The Poplin Scholarship.

Founded by F. L. Poplin of Los Angeles. The incumbent to be named by the founder.

# The Ontario Scholarship.

For the benefit of graduates of the Ontario High School.

# Zana E. Stevens Scholarship.

Founded by Rev. F. G. H. Stevens, September 16th, 1907, in memory of Zana E. Stevens, nee Terpenning, of the class of 1901. This scholarship is to be filled by a member of the J. O. C. Class of the First Methodist Episcopal Church of Santa Monica, of which Mrs. Stevens was the organizer and teacher. The incumbent is to be named by the founder when he so desires, otherwise by the Presiding Elder of the Los Angeles District and the authorities of the University. In case no member of this J. O. C. Class is eligible, the incumbent shall be chosen from any J. O. C. members who apply for same. In case none such apply, the incumbent shall be chosen from any female students who apply.

# The A. M. Hough Scholarship.

Founded by Mrs. Anna G. Hough May 7, 1908, by the payment of one thousand dollars. This scholarship is to be perpetual, and is to be used to aid some student each year in the College of Liberal Arts who is preparing to enter the ministry of the Methodist Episcopal Church. In case no such student should apply, the President of the University is authorized to use the scholarship to benefit any worthy student needing such help.

Others contemplate the establishment of prizes and scholarships, and it is earnestly hoped that soon a goodly number can be offered. Friends of the school can greatly add to its attractiveness in this way.

## Prizes.

## The Lottie Lane Prize.

This prize, established by Mrs. Charlotte A. Thomson as a memorial to a deceased daughter, is an elaborate gold medal, to be presented each year at Commencement to that member of the graduating class who shall have maintained the highest general average in scholarship throughout the whole college course. Students who have taken more than four academic years to complete the course or those who have received credit for work done elsewhere than in this College, are not eligible for this prize. This medal was awarded in 1908 to Zula F. Brown

## The Oratorical Prize.

The Rev. George R. Graff and wife, give fifty dollars annually to be awarded to the man who wins the first place in the local oratorical contest.

The Phi Alpha Fraternity gives an additional annual prize

of twenty-five dollars for the best oration delivered in the local contest by an undergraduate; the Oratorical Association offers a second prize of fifteen dollars and a third prize of ten dollars.

The first prize was awarded in 1908 to Orwyn W. E. Cook.

## Gifts to the University.

The Hough Fund. This is a fund of \$65,000 given by Rev. Asabel M. Hough, deceased, and his wife, Anna G. Hough, of Los Angeles. It is to be held by the University in perpetuity, and the income is to be used for current expenses of the College of Liberal Arts, or as the Board of Trustees may annually direct.

The Hazzard Professorship. Rev. A. C. Hazzard has given to the University, property valued at \$30,000 for the endowment of a professorship in English Bible.

The Merryman Professorship. Mr. T. D. Merryman has given to the University property valued at \$25,000 for the endowment of a professorship in Mathematics.

Hartupee Gift. This gift consists of \$22,500.

For further information address.

UNIVERSITY OF SOUTHERN CALIFORNIA,

Los Angeles, California.

# Medical Department.

The Medical Department which has been connected with the University has by mutual agreement become affiliated with the University of California.

# Courses of Instruction.

## BIOLOGY.

Professor Albert B. Ulrey.

Assistant Professor, Andrew C. Life (Botany).

Chester H. Bowers, Instructor (Zoology).

Laboratory Assistants, Chas. L. Parmenter, Percy S. Barnhart.

Cources adapted to the needs of students who do not major in biology but desire some knowledge of organic nature and training in scientific methods are: General Zoology or General Botany and Bionomics.

Major Work: (a) Animal Biology, courses 1-6; General Biology, courses 1 and 2; (b) Plant Biology, courses 1-5; General Biology, courses 1, 2 and 6. Students with special needs may substitute certain biological courses for those regularly scheduled.

The courses in General Zoology, Physiology, Bacteriology, General Botany and Bionomics will be offered each year. Other courses given will be determined by the available time of the instructors and the needs of the students of the department.

Two or more assistants are selected each year from the advanced students of the department who maintain a high standard of scholarship and are otherwise qualified for the work.

For equipment see page 00.

## ANIMAL BIOLOGY.

1. General Zoology. Laboratory study of representative types of invertebrate and vertebrate animals from the simplest to the most complex. A series of lectures co-ordinating the laboratory work and dealing with the general problems of biology. The course includes a study of animal structure, functions, relationships and adaptation to environment. The student receives instruction in the use of the microscope, dissecting apparatus, and is directed in the study of animals in their native environment. Ten hours laboratory work and lectures

per week, throughout the year. Four hours, both semesters. 2-3:50, Monday, Tuesday, Wednesday, Thursday.

- 2. Histology. The microscopic anatomy of animal tissues. Methods of preparation of tissue with practice in fixing, sectioning, staining and mounting. Laboratory work, lectures and recitations, six hours per week, one semester. Prerequisite Course 1. Three hours either semester.
- 3. Embryology. The general course of development of one of the higher vertebrates. Special study of the early stages of development of the organs. Embryological methods and practice in serial sectioning. The lectures deal with the general problems of embryology. Six hours per week, one semester. Prerequisites Courses 1 and 2. Three hours, either semester.
- 4. Physiology. Lectures, laboratory work and recitations on the activities of living organisms. Special study of the physiology of the human body. Six hours per week, one semester. Prerequisites Course 1 or Plant Biology 1. Three hours, first semester. 8-9:50, Monday, Wednesday, Friday.
- 5. Anatomy of Vertebrates. Dissection of types of the higher vertebrates; quizzes, recitations and lectures. The course is primarily for preparatory medical students. Six hours per week are required in the laboratory, one semester. Prerequisite Course 1. Three hours, either semester.
- 6. Systematic Zoology. The course deals with certain groups of vertebrates with special reference to morphology and relationships. Laboratory study, field work and lectures. Six hours per week, one semester. Prerequisite Course 1. Three hours, either semester.
- 7. Advanced Physiology. This course is given in the College of Medicine.
- 8. Special Zoology. Investigation of some topic of limited scope. This course is planned to meet the needs of each student prepared to pursue it. Six hours per week, throughout the year. Prerequisite Courses, 1, 2, 3, 4 and 5, or their equivalent. Three hours, both semesters.

#### PLANT BIOLOGY

1. General Botany. The course comprises a study of typical plants representing the vegetable kingdom. The first

semester as well as a part of the second is devoted to Thallophytes and Archegoniates; the remainder of the second semester to Spermatophytes. Laboratory study, field work and lectures. Ten hours per week throughout the year. Four hours, both semesters. 10:25-12:10, Monday, Tuesday, Wednesday and Thursday.

- 2. Plant Anatomy and Histology. The minute structure of the systems of tissues. Microscopical technique in preparing permanent mounts. Laboratory work and lectures. Six hours per week, one semester. Prerequisite Course 1. Three hours, either semester.
- 3. Plant Physiology. Experimental work on the physiology of plants, lectures and supplementary reading. Six hours per week, one semester. Prerequisite Course 1. Three hours, either semester.
- 4. Morphology of Bryophytes and Pteridophytes. A critical morphological study of typical representatives of Bryophytes and Pteridophytes, their development form the germinating spore to the adult. Special attention is given to the relationships of the groups as indicated by their structure, and to the phases of alternation of generations illustrated by the types studied. Six hours per week, one semester. Prerequisite General Botany. Three hours, either semester.
- 5. Ecology and Taxonomy. A study of flowering plants (spermatophytes) in the local flora. The course deals with the relationship of plants to their environment; affinities indicated by their structure, and a brief consideration of pedigree-cultures. Six hours per week, one semester. Prerequisite General Botany. Three hours, either semester.

# GENERAL BIOLOGY.

1. Bionomics. A course of lectures dealing with the general principles of biology. The problems of inheritance, development and sex are considered from the cytological standpoint throughout the first semester. Variation, heredity, selection, regeneration and kindred topics are studied during the second semester. Two hours per week, throughout the year. Pierequisite General Zoology or General Botany. Two hours, both semesters. 8:55, Tuesday and Thursday.

- 2. Bacteriology. The course consists of a study in the laboratory and by means of lectures of the nature of the bacterial organism; its relation to disease, methods of cultivating and isolating; inoculation experimetrs, staining of sections, examination of water, etc. Six hours per week, one semester. Prerequisite Botany. 1. Or Zoology. 1. Three hours, second semester. 8-9:50 Monday, Wednesday, Friday.
- 3. Hygiene and Sanitary Science. A course of lectures and laboratory demonstrations on (a) the improvement and preservation of health, and (b) the applications of science in the home. Open to all students. Two hours, either semester.
- 4. Nature Study. A series of illustrated lectures on the study of living objects. The course affords opportunity for the student to learn something of the more common objects of nature and how to study them profitably. Open for credit to students who have not previously pursued any courses in biology. Two hours, either semester.
- 5. Experimental Biology. The course consists of a series of experiments on organisms to determine their response to conditions varied from those normal to the plant or animal. (a) Variation; (b) Hybridization; (c) Regeneration. The work must be continued throughout one year. It may be made the basis of a graduation thesis. Prerequisite, eighteen hours of Biology. Three hours, both semesters.
- 6. Seminar. The advanced students and instructors of the department meet two hours per week for reports on special investigation and present-day problems of biology. One hour, both semesters.
- 7. Journal Club. Reports on the current literature of biology, one hour per week throughout the year.

#### CHEMISTRY.

Professor Laird Joseph Stabler. Assistant Professor Ethel W. Graves.

Laboratory Assistants, Clarence E. Jones, Stanislaus L. Burek.

Courses 1, 2, 3 and 4 are prerequisite to all other courses in Chemistry.

In all laboratory courses except Course 14, a laboratory deposit of thirteen dollars per semester for each course is re-

quired. Of these charges, five dollars per semester, less breakage, is returnable. In Course 13 a fee of twenty dollars is charged, and in addition a deposit of ten to thirty dollars is required to cover cost of material consumed.

- 1. General Inorganic Chemistry—Non-metals. Lectures and recitations with illustrative experiments, and study of a manual. Smith's General Inorganic Chemistry. Usual prerequisite, Marticulation Chemistry. To be taken in connection with Course 3. Three hours, first semester. 1:05, Wednesday, Thursday, Friday.
- 2. General Inorganic Chemistry—Metals. A continuation of Course 1, together with an introduction to the study of Qualitative Analysis. To be taken in connection with Course 4. Three hours, second semester. 1:05, Wednesday, Thursday, Friday.
- 3. General Inorganic Chemistry—Laboratory. A series of experiments illustrating the general laws of chemical action, and designed to supplement Course 1 and be taken in connection with it. Laboratory Guide, Alexander Smith's Outline of General Chemistry. Six hours per week in the laboratory. Two hours, first semester. 1:05-3:50, Monday, Tuesday.
- 4. Qualitative Analysis. A laboratory course in elementary qualitative analysis, with occasional lectures and recitations. Prescott's Qualitative Analysis. Six hours per week in the laboratory. Two hours, second semester. 1:05-3:50, Monday, Tuesday.
- 5. Quantitative Analysis. Laboratory practice in gravimetric and volumetric determinations, with occasional lectures and recitations. Olsen's Quantitative Chemical Analysis. Nine hours per week in the laboratory. Three hours, both semesters. Hours to be arranged.
- 6. Advanced Qualitative Analysis. A laboratory course involving difficult qualitative separations, and detection of some of the rare elements. Weekly lectures and discussions. Prescott and Johnson's Qualitative Analysis is recommended for reference. Three hours, either semester. Hours to be arranged.
- 7. Organic Chemistry. Lectures and recitations on the chemistry of the carbon compounds. Remsen's Organic Chemistry. Two hours, both semesters. 1:05, Monday, Tuesday.
  - 7a. Organic Preparations. A laboratory course in the prep-

aration of typical carbon compounds. Open to students who have completed Courses 1, 2, 3, 4, 5 and 7. Two hours, both semesters. Hours to be arranged.

- 8. Mineral Analysis. Gravimetric and volumetric analysis of representative minerals, ores and alloys. Prerequisite, Course 5. Four or Five hours, either semester.
- 9. Physical Chemical Measurements. A laboratory course in physical-chemical methods. Molecular and atomic weight determinations by vapor density, boiling-point and freezing-point methods. Determination of conductively of electrolytes, reaction velocity, isothermal and chemical equilibrium. Prerequisite, Course 5. Two hours, either semester.
- 10. Quantitative Analysis of Agricultural Products. Systematic analysis of fertilizers, dairy products, etc. Prerequisite, Course 5. Four or five hours, either semester.
- 11. Medical Chemistry. A laboratory course, including urine analysis, toxicology and food analysis. Designed especially for students looking forward to medicine or pharmacy. Open to students who have completed or are taking Courses 5 and 7. Three hours, either semester.
- 12. Food Analysis. A laboratory course in Chemistry of meat and meat products, edibles and fats, dairy products, cereal products, saccharine products, canned vegetables, cocoa, tea, coffee, spices, vinegar, flavoring extracts, fruits and fruit products, fermented and distilled liquors, baking powders, food preservatives and coloring matter. Open to students who have completed Courses 5 and 7. Two hours, either semester.
- 13. Assaying. This course comprises silver and gold extraction by scorification and crucible methods; fire assay of copper, lead and tin, extraction of gold from ores by the amalgamation, the chlorination, the cyanide and the electrolytic process. Two hours, either semester. Hours to be arranged.
- 14. Seminary. Papers and discussion on assigned topics, with lectures on subjects of general chemical interest. Open to advanced students. One hour, both semesters.

Major Work: Sixteen semester hours in addition to courses 1-4.

## ECONOMICS AND SOCIOLOGY.

## Professor Rockwell D. Hunt.

### ECONOMICS.

- 1. Principles of Economics. A comprehensive introduction to economic study, based upon Seligman's text and supplemented by lectures, assigned readings, and student exercises. The topics studied include: the elements of economic life; the nature of value, and its relations to distribution; the theory and practice of exchange, money, credit and banking; the factors of production; the social ordering of wealth. Three hours, both semesters. 10:25 Monday, Wednesday, Friday.
- 2. Public Finance. A study of budgetary science, the principles and practice of taxation, public expenditures, and financial administration. Adams' Science of Finance used as a basis. Three hours, second semester. Not given in 1909-10.
- 3. Money and Banking. Origin and evolution of money, with special attention to the problems of metallic and paper money; history and theory of banking, with examination of leading systems and special problems. Three hours, first semester. 8:55 Monday, Wednesday, Friday.
- 4. Economic Geography. A survey of the history and present status of industry and commerce in the principal countries; natural advantages in the world market, and national policies in development of resources, with special attention to the United States. Three hours, second semester. 8:55 Monday, Wednesday, Friday.
- 5. Transportation and Communication. The theory and history of transportation; development of the railroad, its organization, management and consolidations. Ocean and inland waterways. Problems of rebates, public regulation, etc. Postal service and express companies. Johnson's American Railway Transportation and his Ocean and Inland Water Transportation are used as guides. Two hours, first semester.

Not given in 1909.

6. Labor Problems. The important labor problems of the day, with special reference to American conditions. Growth of labor organizations, strikes and lockouts, industrial arbitration, profit-sharing, woman and child labor, immigration, etc. Three

hours, second semester. 2 p. m. Monday, Wednesday, Friday.

- 7. History of Economic Thought. Development of economic thought from classical antiquity, with discussion of different schools of economists. Extensive readings from numerous writers. Open only to advanced students. Three hours, second semester. Not given in 1909-10.
- 8. Recent Economic Thought. A comparative study of theories of leading economists of the present day, with special reference to the problems of the distribution of wealth. Open only to advanced students. Two hours, both semesters. Hours to be arranged.
- 9. Municipal Problems. The rise of the modern city; economic, social and governmental problems presented. Regular work is supplemented by an extensive series of special lectures by leading practical experts of Los Angeles. Investigations and reports on special concrete problems. Three hours, first semester.. 2 p. m. Monday, Wednesday, Friday.

# Municipal Problems.

# Special Lectures Given During 1908-1909.

Congressman James McLachlan—"Legislating for the Nation."
Judge N. P. Conrey—"Relations of the City to the State."

Gen. F. C. Prescott-"'Uncle Sam's Land Office Business."

R. H. Mannahan-"Work of the City Electrician."

Prof. Wm. R. Bowker—"Law of Diminishing Returns as Affecting Street Railway Enterprises."

Supt. E. C. Moore-"Task of Educating the Masses."

Mrs. Willoughby Rodman—"Rightful Heritage of City Children."

Wm. M. Bowen-"Safeguarding the People's Interests"

Wm. Humphries-"'Uses of City Parks."

Franklin S. Wade-"The Question of Municipal Gas."

Dr. Dana Bartlett-"For a Better City."

E. J. Harper-"'The Ministry of Trees."

John F. Roche-"Civic Significance of Life Insurance."

W. C. Mushet-"Science of Municipal Accounting."

Walter Mallard-"Problems of City Taxation."

W. B. Mathews-"How a City Is Bonded and Why."

D. E. Luther-"For the Uplift of Young Men."

George H. Stewart—"Publicity of the City's Resources."
Dr. John R. Haynes—"Efficiency and Civil Service."
Harry E. Andrews—"The Press and the Public."
J. D. Radford—"The Banks and the People."
Col. Randolph Miner—"Development of Artificial Harbors."
Capt. A. A. Fries—"Significance of San Pedro Harbor."

Note.—Economics 1 is recommended to students taking the six hours requirement (History or Economics) in this department. It is prerequisite to other courses in Economics. Courses 5 to 9 are designed for students above the Sophomore year.

## SOCIOLOGY.

- 1. Principles of Sociology. Elements of social theory The structure, development and activities of human society. A comprehensive study of the social process and social ends, with frequent application to concrete conditions. Three hours, first semester. 11:20 Monday, Wednesday, Friday.
- 2. Social Problems. Studies in practical sociology, based on Carroll D. Wright's text, with lectures and reports. Problems of population, the family, the modern city, temperance, crime, poverty, etc. Each student investigates some concrete local question and presents results. Two hours, first semester. 11:20 Tuesday, Thursday.
- 3. Charities and Corrections. Studies in social pathology. Poverty and philanthropy, the dependent classes, public and private administration of charities. The class visits charitable and reformatory institutions in Los Angeles and vicinity to study conditions and methods of social betterment. Two hours, second semester. 11:20 Tuesday, Thursday.
- 4. Social Theories. A comparative study of the writings of leading sociologists of the present day. Extensive library work and frequent student reports are among the requirements. Open only to advanced students. Three hours, second semester. 11:20 Monday, Wednesday, Friday.

Note.—Sociology 1 is prerequisite to other sociology courses, except by special permission. Major work: Thirty semester hours.

### ENGLISH.

Professor James Main Dixon.

Associate Professor Stella Webster Morgan.

Dr. Ezra A. Healy, Lecturer in English Literature.

Nancy K. Foster, Lecturer on Nineteenth Century Poets.

### A.

## Rhetoric.

- 1. Rhetoric and Themes. First semester devoted to expository writing based on Wendell's English Composition. Second semester, detailed study of the Forms of Discourse, following Hersey, Nutter and Greenough's Specimens of Prose Composition. Three hours, both semesters. Required of freshmen. Sec. A, 11:20 Monday, Wednesday, Friday; Sec. B, 1:05 Monday, Wednesday, Friday; Sec. C, 8:55 Monday, Wednesday, Friday. Professor Morgan.
- 2. Rhetoric and Journalism. With practice in writing editorials and book reviews. Text: The King's English (Oxford University Press.) Two hours, first semester, 1:05 Monday, Wednesday. Professor Dixon.
- 3. Rhetoric and Public Speaking. With practice in making briefs and writing an oration. Text: Shurter's Masterpieces of Modern Oratory. Two hours, second semester, 1:05 Monday, Wednesday. Professor Dixon.
- 4. Seminar in Rhetoric, with systematic practice in themereading. Open only to advanced students of approved standing. Two hours, either semester, hours to be arranged.

Professor Morgan.

#### B.

# Philology.

- 1. Early English Grammar. Text: Wyatt's Old English Grammar. Two hours, first semester. 2:00 p. m. Monday, Wednesday. Professor Dixon.
- 2. Early English Poetry. Texts: Crow's Maldon and Brunanburg; Wyatt's Beowulf. Two hours, second semester. 2:00 p. m. Monday, Wednesday. Professor Dixon.
  - 3. Early English Prose. Texts: Wyatt's Elementary Old

English Reader. St. John's Gospel in West-Saxon. Two hours, first semester. 2:00 p. m. Tuesday, Thursday. Professor Dixon.

- 4. Middle English, including Chaucer. Text: C. W. Emerson's Middle English Reader. Two hours, second semester. 2:00 p. m. Tuesday, Thursday. Professor Dixon.
- 5. The Origin and Growth of the English Language, with a comparative treatment of language. Text: O. W. Emerson's History of the English Language. One hour, both semesters. 1:05 Friday. Professor Dixon.
- 6. Burns, Scott and Northern English Dialect Literature. Two hours, first semester. 11:20 Tuesday, Thursday. Professor Dixon.

C.

# English Literature.

- 1. General Survey of English Literature. Texts: Crawshaw's The Making of English Literature; Manly's English Poetry. Prerequisite for elective courses. **Two hours, both semesters.** 1:05 Tuesday, Thursday. Professor Dixon.
- 2. General Survey of American Literature. Wendell and Greenough's History of Literature in America. Assigned readings and reports. Two hours, first semester. 2:00 Tuesday, Thursday. Professor Morgan.
- 3. English Prose Writers of the Eighteenth Century, with lectures on the growth of society and the development of movements and institutions. Two hours, first semester. 10:25 Tuesday, Thursday. Professor Dixon.
- 4. The Short-Story. Brander Matthews' The Short Story, Cody's World's Greatest Short Stories. Lectures and class discussion. Each member of the class writes one original story. Two hours, first semester. 8:00 Tuesday, Thursday. Professor Morgan.
- 5. The Technique of the English Novel. Whitcomb's Study of the Novel, with analysis of one of George Eliot's or Thackeray's works, and comparative study of other novels. Class discussions, with required reports based on critical reading. Two hours, second semester. 8:55 Tuesday, Thursday. Professor Morgan.
  - 6. Milton's Epic and Dramatic Poems. Text: Cambridge

edition of Milton's Complete Works. Two hours, first semester. 2:55 Wednesday, Friday. Professor Dixon.

- 7. Nineteenth Century British Poets. First semester, Wordsworth, Shelley and Keats. Second semester, Browning, Tennyson, Rossetti and Arnold. Three hours, both semesters. 10:25 Monday, Wednesday, Friday. Professor Dixon, Miss Foster.
- 8. Pre-Shakespearian Drama. Manly's Specimens of Pre-Shakespearian Drama, Vols. 1 and 2. Lectures on the History of the Drama, with critical reading of plays. Two hours, second semester. 2:00 Tuesday, Thursday. Professor Morgan.
- 9. Comparative Study of the Drama. Lectures on dramatic law and technique, with critical study of Greek, Latin, French, and German Drama through English translation. Two hours, first semester. 8:55 Tuesday, Thursday. Professor Morgan.
- 10. Shakespeare. Critical study of six plays: As You Like It, The Tempest, Romeo and Juliet, I Henry IV, Macbeth and Hamlet. Three hours, second semester. 8:00 Tuesday, Thursday, Friday. Professor Morgan.
- 11. Seminar in Versification. A study of the laws of English Prosody. Professor Dixon is assisted in this course by Professor Pemberton of the College of Music, who presents the Musical Basis of Verse. Two hours, second semester. Hours to be arranged.
- 12. Seminar. Methods of teaching English in Secondary Schools. Carpenter, Baker and Scott's Teaching of English, with supplementary reading in Chubb's Teaching of English. Discussion of special methods in English Composition and Rhetoric, and the English classics required for admission to the University. This course is for advanced students who expect to teach English. Two hours, first semester. 1:05 Tuesday, Thursday. Professor Morgan.
- 13...Browning. Comparison of Browning's dramatic work with Shakespeare's, followed by a study of Browning's lyrical poems and monologues. Two hours, both semesters. 11:20 Monday, Wednesday. Miss Foster.
- 14. English Prose Writers of the Nineteenth Century. With lectures on modern thought and brotherhoods. Two hours, second semester. 10:25 Tuesday, Thursday. Professor Dixon.
  - 15. The Schools and Vocabulary of Literary Criticism. Text:

Gayley and Scott's Methods and Materials of Literary Criticism. Two hours, second semester. 11:20 Tuesday, Thursday. Professor Dixon

- 16. English Prose from Bacon to Bunyan. Two hours, first semester. 10:25 Tuesday, Thursday. Dr. Healy.
- 17. English Poetry from Dryden to Cowper. Manly's English Poetry. Two hours, second semester. 10:25 Tuesday, Thursday. Dr. Healy.

Major Work: Thirty semester hours, including Rhetoric 1.

## ENGLISH BIBLE.

## Professor John G. Hill.

- 1. The Pentateuch and Historical Books of the Old Testament. Hebrew origin, history, tradition, cosmogony, morals, laws, government, and religious philosophy from Abraham to Solomon will be mastered. The questions of date, author, purpose, plan, style of literary composition and ruling ideas of each book will be studied. Two hours, first semester. 1:05 Tuesday, Thursday.
- 2. The Prophetic and Wisdom Books of the Old Testament. This course will survey the varied and swiftly changing periods of Hebrew and Jewish history from the close of the United Kingdom to the close of Old Testament times. The greatest stress, however, will be laid upon the study of the prophets; their unique place and power, their relation to state and Church, their distinctive messages and permanent contribution to the history of religion. Two hours, second semester. 1:05 Tuesday, Thursday.
- 3. The Apostolic Age of the New Testament. This course is a careful survey of the Apostolic Church of the first century, its origin, strange success, painful conflicts with Judaism, brutal persecutions by Paganism, its new life in the dying Empire; also a comparison of the religious ideas of Paul, Peter, James and John and their mode of inspiration. Two hours, first semester. 2:30 Tuesday, Thursday.
- 4. The Gospel History and Literature of the New Testament. A study of the life, teachings, work and significance of Jesus Christ as portrayed in the Four Gospels and as seen against the historic background of modern scholarship. Special emphasis

is laid upon the living authority of Jesus and the ruling ideas of the Sermon on the Mount in sharp contrast to Jewish and Pagan religious ideas. Two hours, second semester. 2:00 Tuesday, Thursday.

### FRENCH.

## Professor Edgar M. von Fingerlin.

1. Fraser and Squair's French Grammar. The essentials of grammar; exercises in pronunciation, reading translation and composition. Dumas' Histoire de Napoleon or equivalent will be read in the second semester. Five hours, both semesters. 8:55 Monday, Tuesday, Wednesday, Thursday and Friday.

Course 1 is intended for students in the College who wish to begin the study of French.

- 2. Modern French Reading. Chateaubriand, Hugo, Balzac, Dumas, Canfield's Selection. Syntax. Composition. Open to students who have completed Course 1, or its equivalent, or who have credit for entrance requirement 11. Three hours, both semesters. 2:00, Monday, Wednesday, Friday.
- 3. Classical French. Selections from Corneille, Descartes, Pascal, La Rochefoucauld, Bossnet and La Bruyere. Advanced French Composition. Two hours, first semester. 11:20 Tuesday, Thursday.
- 4. Teachers' Course. Study of sounds, voice, homonyms, synonyms, word-formation, methods of teaching French, and those niceties of the language in which, as long experience has taught, even advanced students are deficient. While primarily intended for teachers the course is open also to those who have finished Course 3. Two hours, second semester. 10:25 Tuesday, Thursday.
- 5. History of French Literature. A text book such as Doumic's Histoire de la Literature Francaise will be used. Lectures will be given in French. Choses de France. Two hours, second semester. 11:20, Tuesday, Thursday.
- 6. Historical French Grammar. A survey of the development of French syntax. Throughout the course the French language will be used as much as possible and special attention given to exact pronunciation supported by explanations or

phonetics. Two hours, both semesters. 1:05 Tuesday, Thursday.

It is the aim of the department to surround the student with a French atmosphere and to introduce him to the manner of speaking, thinking, and feeling of the people whose language he is studying, hence talks about France and the French as they are at home will be given in all classes.

Major Work: Courses 1-6.

### GEOLOGY.

### Professor Laird J. Stabler.

- 1. General Geology. Study of a text, with observations on rocks and fossils from museum specimens and field excursions. Two hours, both semesters.
- 2. Mineralogy. Laboratory work, with blow-pipe analysis and chemical tests for minerals. Lectures and readings. Two hours, both semesters.

## GERMAN.

# Professor Margaret Graham Borthwick. Assistant Professor Ruth W. Brown.

1. Elementary German. Pronunciation, reading and grammar, with practice in speaking and writing German.

This course includes the essentials of German grammar, with various practical exercises in dictation, composition, translation at hearing, and oral and written reproduction.

During the second semester some interesting short stories and characteristic poems are studied. Five hours, both semesters. 8:55 Monday, Tuesday, Wednesday, Thursday, Friday.

Course 1 is intended for students who enter without German. It covers the ground of preparatory subject 10.

...2...Modern German. Modern narrative and dramatic prose, selected poems, and one drama of Schiller or Lessing. Grammar continued, with written and oral exercises. Letter writing and original compositions once every two weeks. Collateral reading. Three hours, both semesters. 8:00 Monday, Wednesday, Friday.

For students who have had course 1, or two years of High School German

3. Scientific and Journalistic German. Rapid reading of scientific prose, also leading articles in German newspapers and magazines. Oral exercises. Written exercise once a week. Two hours, both semesters. 1:50 Tuesday, Thursday.

For students specializing in science. Open to those who have had course 2, or its equivalent.

4. Classical Writers. Dramas of Lessing, Goethe, and Schiller. Lyrics and Ballads. Lectures and conversation on the life and works of each author studied. One written exercise each week. Three hours, both semesters. 2:00 Monday, Wednesday, Friday.

Open to students who have had course 2, or its equivalent.

5. Teacher's Course. Review of grammar, with special emphasis on points necessary for teachers. Introduction to Vietor's system of phonetics, with exercises in reading phonetic texts. Practice in pronunciation and in reading aloud. Recitation of poems, and reading of dramas with assigned parts.

Written exercises in grammar and advanced composition. Two hours, both semesters. 2:00 Tuesday, Thursday.

Required of all students majoring in German. Open to those taking any course beyond 3.

6. Schiller. Chronological study of Schiller's life and works. Reading of one complete drama, probably Wallenstein, with selections from other dramas and the principal ballads. Collateral readings and practice in composition. Two hours, first semester. 1:05 Monday, Wednesday.

Course 6, alternating with course 8, will not be given in 1909-1910.

7. Goethe. Chronological study of Goethe's life and work'. Readings from "Aus meinem Leben," and Goethe's lyrics and dramas. Collateral readings and practice in composition. Two hours, second semester. 1:05 Monday, Wednesday.

Course 7, alternating with course 9, will not be given in 1909-1910.

- 8. Nineteenth Century Literature. Representative dramas and novels from Grillparzer, Hauptmann, Freytag and Scheffel. Open to students who have had course 4, or its equivalent. Three hours, first semester.
  - 9. Goethe's Faust. Interpretation and discussion of both

parts, with short historical introduction and collateral reading of Marlowe's Faust and of the Puppenspiel. Three hours, second semester.

Major Work: Courses 1-9.

#### GREEK.

#### Professor Festus E. Owen.

- 1. Beginning Greek. Burgess & Bonner's Elementary Greek. Book I of Xenophon's Anabasis translated. Practice in sight reading from Book II. Pearson's Greek Prose Composition used in connection with the Anabasis. Five hours, both semesters. 11:20 Monday, Tuesday, Wednesday, Thursday, Friday.
- 2. Xenophon's Anabasis. Books II-IV translated. Thorough grammar drill. Daily practice in reading at sight. Pearson's Greek Prose Composition used daily in connection with the text. Five hours, first semester. 10:25 Monday, Tuesday, Wednesday, Thursday, Friday.

Homer's Iliad. Books I-IV read and translated, Books V-VI read at sight. Special attention given to Homeric forms, scansion, and mythology. Prose Composition and Grammar review. Five hours, second semester. 10:25 Monday, Tuesday, Wednesday, Thursday, Friday.

(Students planning to major in Greek, but who offer but two years of Greek for entrance, are required to take course 2, second semester, in addition to courses prescribed for major work.)

- 3. Herodotus. Books VII and VIII; Lucian. Selections for rapid reading. Three hours, first semester. 2:55 Tuesday, Wednesday, Thursday.
- 4. Plato. Apology and Crito with selections from the Phaedo.

Lectures on Greek Philosophy and Plato's ethics in relation to modern thought. Three hours, second semester. 2:55 Tuesday, Wednesday, Thursday.

5. Xenophon's Memorabilia, Selections. Plato's Gorgias and Protagoras.

A careful study is made through lectures and assigned readings of the history of Greek Philosophy up to Aristotle.

The aim of this course is to introduce the student to the

study of Philosophy with reference to its history, its problems and its effect upon human life. Three hours, both semesters. 1:10 Monday, Wednesday, Friday.

- 6. Greek Tragedy.
- (a) Aeschylus-Prometheus.
- (b) Sophocles-Antigone.

A careful study of the development of the Greek Drama will be made through lectures and assigned readings. Special attention given to the evolution of religious ideas and to the ethical tendencies in the Dramatists. Three hours, first semester. 1:10 Monday, Wednesday, Friday. Omitted 1909-1910.

- 7. Homer. Odyssey, four to eight books. Study of the whole period of epic poetry. Collateral reading from standard histories of Greek literature—Jebb's "Introduction to Homer" and Arnold "On the Translation of Homer. Lectures on Homeric religious, social and political customs. Three hours, second semester. 1:10 Monday, Wednesday, Friday.
- 8. Herodotus and Thucydides. Selections. Three hours, both semesters.

(Omitted 1908-1909.)

9. History of Greek Literature from Homer to Theocritus. This course consists of lectures and recitations based on translations together with papers on assigned topics. Jebb's "Primer of Greek Literature," and "Murray's Ancient Greek Literature," will be used as general guides. The aim is to secure familiarity with the great masterpieces of Greek Literature as well as to gain a comprehensive grasp of the important facts of its history. This course is of special value to those who expect to specialize in, or to teach English Literature. Open to all students. Two hours, both semesters. 8:55 Tuesday, Thursday.

Six hours credit will be given in Course 8 to those students not majoring in this Department. To those majoring in Greek, but four hours credit will be granted.

10. New Testament Greek. Reading of Luke's Gospel and selections from The Acts. Two hours, both semesters. Hours to be arranged.

Major Work: Courses 3 to 9.

#### HISTORY.

Professor Tully C. Knoles. Professor James H. Hoose, Professor Rockwell D. Hunt. Professor James M. Dixon,

- 1. English History. With special reference to social and literary development. Lectures, reports, collateral reading. Both semesters. 11:20 Tuesday, Thursday.
- 2. Mediaeval Europe. (a) A general survey of ancient civilization; a discussion of the transition period. (b) From Charlemagne to the Renaissance. Text book, Emerton's "Mediaeval Europe." Lectures, bibliography making, reports. Both semesters. 8:55 Monday, Wednesday, Friday.
- 2. Modern Continental Europe. Selected periods, including the French Revolution, and the organization of the German Empire. Text books: Lowell's "Eve of the French Revolution"; Andrew's "Historical Development of Modern Europe." Both semesters. 11:20 Monday, Wednesday, Friday.
- 4. Constitutional and Institutional History of the United States. Lectures, reports, investigations, comparisons. Both semesters. 1:05 Monday, Wednesday, Friday.
- 5. Problems of the New Orient. (a) The history of Japan from legendary times. Japanese ideals and social conditions. The aborigines of Japan in Yezo and Sakhalin. The new industrialism and imperialism. Text book: Chamberlain's "Things Japanese." b) The Chinese race, its origins, history and ideals. Manchu influences. The meeting of the Orient and Occident. Possibilities latent in the Chinese people. Text book: Arthur Smith's "Chinese Characteristics." (c) Corea as influencing and influenced by China and Japan. Two hours, both semesters. Hours to be arranged. Dr. Dixon.
- 5. English History from a Literary standpoint with special reference to historical plays of Shakespeare. One hour, to be arranged, both semesters. Dr. Dixon,
- 7. International Law. The nature, sources and principles of international law, the influence of Christian civilization upon rules and the contribution of the United States to its

development. Three hours, second semester. 11:20 Monday, Wednesday, Friday. Dr. Hoose.

- 8. History of Ancient Law. Considers the field of the conditions of civilization out of which emerged the ideas, principles and forms which have formulated the systems of civil and criminal laws. Two hours, second semester. 11:20 Tuesday, Thursday. Dr. Hoose.
- 9. Pacific Slope History. Special lecture course, with special reference to California. Primarily for advanced college students and teachers. One hour throughout the year. Hour to be arranged. Dr. Hunt.

Major Work: Thirty semester hours.

#### ITALIAN.

#### Prof. Edgar M. von Fingerlin,

- 1. Grandgent's Italian Grammar. La Parola Italiana by Comba. Bowen's First Italian Readings, Goldoni's II Vero Amico, Grandgent's Italian Composition. Three hours, both semesters. 11:20 Monday, Wednesday, Friday.
- 2. Manzoni's I Promessi Sposi. Silvio Pellico's Le Mie Prigioni and other classics. Composition. Two hours, both semesters. 1:05 Monday, Wednesday. tures on Italian Literature. Two hours, both semesters. Hours
- to be arranged.
  3. Dante, Tasso, Petrarca. Advanced Composition. Lec-

#### LATIN.

Professor Roy Edwin Schulz. Assistant Professor Ruth W. Brown. Assistant Professor Hugh C. Willett.

- 1. Cicero. De Senectute, Tusculan Disputations, Book I. Careful interpretation of the text with practice in reading aloud with proper phrasing and emphasis without translation and in translation at hearing. Three hours, first semester. 10:25 Monday, Wednesday, Friday.
- 2. Horace. The Odes and Epodes. Lectures on the Augustan Age and Horace's contemporaries. Metrical reading, style and subject matter are given special attention. Three hours, second semester. 10:25 Monday, Wednesday, Friday.
  - 3. Latin Syntax. A complete review in lectures and exer-

cises of Latin syntax. The exercises are based on Cicero's De Senecture. The course is required of all registered for Course 1. Two hours, either semester. 10:25 Tuesday, Thursday.

- 4. Latin Prose Composition. Special attention is given to sentence structure, word-formation, and synonyms. The exercises are based on Cicero's De Amicitia which is read at sight. Open only to students who have received a high grade in Course 3. Two hours, second semester. 10:25 Tuesday, Thursday.
- 5. Latin Comedy. During the semester at least one play of Terence and two of Plautus will be read. Special attention is given to early forms, meter, etc. Lectures on the development of Roman Comedy, on the Roman theater, on the presentation of plays and on Roman Life. Three hours, first semester. 8:55 Monday, Wednesday, Friday.
- 6. Livy. Selection from the extant books. Lectures on the history and literature of the period of foreign conquest. Reference reading in Mommsen, Niebuhr, etc. Three hours, second semester. 8:55 Monday, Wednesday, Friday.
- 7. Cicero. Letters. Lectures on the history of the Republic from B. C. 133 with special reference to contemporary events. Two hours, first semester. 8:00 Tuesday, Thursday.
- 8. Tacitus. Agricola and Germania, or selections from the Annals. Lectures on the history and literature of the early empire. Two hours, second semester. 8:00 Tuesday, Thursday.
- 9. Advanced Latin Prose Composition. Writing of essays and letters in Latin. Translation of passages from English writers. The style of Cicero, Livy and Tacitus studied and compared. Open only to students who have received a high grade in Course 4. One hour, both semesters. 2:00 Monday.
- 10. History of Latin Literature. Lectures on Latin Literature from Livius Andronicus to Boethius, with the interpretation of selections from all prominent authors. The course does not require a knowledge of Latin, and is open to students of all departments. Major students in the department will be required to do outside reading from text. Two hours, both semesters. 8:55 Tuesday, Thursday. (Not given in 1909-1910.)
- 11. Latin Poetry of the Republic. Selections from Lucretius, Catullus, Ovid, Propertius and Tibullus studied largely

with reference to thought and artistic form. Two hours, first semester. 2:00 Wednesday, Friday.

- 12. Latin Poetry of the Empire. Selections from Seneca, Martial and Juvenal. Two hours, second semester. 2:00 Wednesday, Friday.
- 13. Teachers' Course. The first semester will be occupied with a critical review of Latin forms and syntax, using Bennett's Appendix as a text. The second semester will be occupied with lectures on the Pedagogical Value of Latin, the work of the four years in the secondary school, the place of Composition, Prosody, History, etc., in the study of Latin; visiting and reports from secondary school in the vicinity of Los Angeles; practice in teaching in the preparatory school of the University. Prerequisite, Philosophy 1.

Open to Juniors and Seniors. Two hours, both semesters. 2:00 Tuesday, Thursday.

Major Work: Thirty semester hours, including Courses 3, 4, 9 and 10.

#### MATHEMATICS.

# Professor Paul Arnold. Assistant Professor Hugh C. Willett.

- 1. Elements of Analysis. This course is intended primarily for those who wish to get a view of some of the principal fields of mathematics without doing to any great extent detailed work in these fields. It includes the fundamental laws of algebra with applications, an elementary course in plane trigonometry, the study of the fundamental ideas of analytic geometry and calculus, with applications of these ideas to problems in geometry; also a brief history of mathematics. Three hours, both semesters. 11:20 Monday, Wednesday, Friday.
- 2. Theory of Algebra. A lecture and text book course in which emphasis is placed principally upon the theory and the development of algebra. This course includes a review of elementary algebra, special attention being given to proofs of fundamental laws and principles. Three hours, both semesters. 8:00 Monday, Wednesday, Friday.
- 3. Algebra. Mathematical induction, equivalent equations, surds and complex numbers, theory of quadratic equations,

simultaneous quadratic and higher equations, ratio, proportion, variation, the progressions and other simple series, inequalities, permutations and combinations, the binomial theorem for any exponent, limits and infinite series, determinants, theory of equations. Two hours, both semesters. 8:55 Tuesday, Thursday (first semester). 8:00 Tuesday, Thursday (second semester).

4. Solid and Spherical Geometry. The fundamental propositions of the Euclidean geometry of space. Three hours, first semester. 8:00 Tuesday, Wednesday, Thursday.

5. Trigonometry. Plane trigonometry and its applications, the trigonometry of the right spherical triangle, and logarithms. Three hours, second semester. 8:00 Tuesday, Wednesday, Thursday.

6. Advanced Trigonometry. This course is designed particularly for engineering students, and includes a review of plane trigonometry, as well as a thorough study of the fundamental principles of spherical trigonometry and the application of its formulas to the solution of spherical figures. Pre-requisite, Course 5 or entrance trigonometry. Two hours, first semester. 8:55 Wednesday, Friday.

7. Plane Analytic Geometry. The analytic geometry of the straight line, the circle, and the conic sections, including a discussion of the general equation of the second degree, and some special examples in higher loci. Five hours, second semester. 8:55 Monday, Tuesday, Wednesday, Thursday, Friday.

8. Differential Calculus. Development of the fundamental principles and formulas, applications to various proolems in geometry and analysis. Three hours, first semester. 10.25 Monday, Wednesday, Friday.

9. Integral Calculus. The general principles of the integral calculus are developed, and the usual applications made to centers of gravity, moments of inertia, and especially to geometry. Three hours, second semester. 10:25 Monday, Wednesday, Friday.

10. Differential Equations. Three hours, both semesters. Hours to be arranged.

11. Descriptive Astronomy. A general course, requiring only the mathematics of Courses 3-5. Open to students in the last

two years of the college course. Two hours, both semesters. Hours to be arranged.

Major Work: Twenty-six semester hours.

#### MUSIC.

#### Professor Walter Fisher Skeele.

Students who take harmony and theory, or advanced instrumental or vocal work in the College of Music may be allowed college credit for the same, but the credit shall in no case exceed fifteen semester hours, and will be given only upon the recommendations of the Dean of the College of Music.

#### ORATORY.

# Professor Beulah Wright, Associate Professor Gertrude Comstock. Associate Professor Elizabeth Yoder.

Students taking work in the College of Oratory may be allowed credit in the College of Liberal Arts, not to exceed fifteen semester hours, credits to be given only upon the recommendation of the Dean of the College of Oratory.

## 1. Vocal Expression.

- (a) Principles of expression, voice building and tone placing. Expression of the body. Interpretation of literature from the text. Two hours, either semester.
- (b) Advanced vocal training and bodily expression. Interpretation from modern authors. Kipling, Van Dyke, Stevenson, Maclaren, and others. Two hours, either semester,

# 2. Public Speaking.

- (a) Extemporaneous work. Preparation and delivery of short speeches such as talks on current public questions, toasts, discussions. Two hours, first semester.
- (b) Extemporaneous Work. Preparation of briefs for debate, forensics, argumentations, lectures. Two hours, second semester.
- 3. Oratory. A study of masterpieces of oratory. Text, Sears' History of Oratory. The preparation and delivery of one original oration. Two hours, either semester.
  - 4. Bible and Hymn Reading. Vocal Expression of the Bible

and Hymns, Voice Building. Text, Curry's Vocal and Literary Interpretation of the Bible. Two hours, either semester.

# 5. Vocal Interpretation:

- (a) Lyric Poems. Training of the Imagination. Studies in Tennyson, Burns, Browning, Wordsworth and others. Two hours, first semester.
- 6. Shakespeare. King Lear or Julius Caesar, Midsummer's Night Dream or Twelfth Night. Two hours, second semester.

(Tuition for the above courses is payable at the Office of the College of Oratory.) (See Tuition College of Oratory.)

Provision is made for a special class in the principles of Expression, for those students who enter the college without the required Preparatory School work. This is an elementary course of two hours for one semester; no college credit will be allowed for it.

#### PHILOSOPHY AND EDUCATION.

# Professor James Harmon Hoose. Philosophy.

- 1. Psychology. The aim in this subject is to acquaint the student with what is valuable in the investigations in Mental Science. Text-books, lectures and original investigations. Prerequisite to Courses 3, 4, and 5. This course is the required work in Philosophy. Three hours, both semesters. 8:55 Monday, Wednesday, Friday.
- 2. Logic. The elements in this subject as given in Jevons' Logic, with practical exercises. Three hours, first semester. 11:20 Monday, Wednesday, Friday.
- 3. History of Philosophy. Weber's History of Philosophy, the text covering the ancient Greek Philosophy, supplemented by additional reading and investigation. Prerequisite for Course 5. Three hours, first semester. 8:00 Monday, Wednesday, Friday.
- 4. History of Philosophy. Modern Philosophy, with readings from the more important philosophers. Three hours, second semester. 8:00 Monday, Wednesday, Friday.
- 5. Metaphysics. Lectures, readings and dissertations. For Seniors. Two hours, second semester. 11:20 Tuesday, Thursday.
  - 6. Ethics. Borden P. Bowne's Principles of Ethics, accom-

panied by lectures, discussions, library references and special inductive and constructive studies in the ethical teachings of Jesus, the great poets and philosophers and autobiographers, ancient, and modern; current ethical problems of the day are treated in the light of recent psychology and mental science. The last part of the semester is given to a detailed study of human duties, individual and social, civic and divine in accord with the rapid moral advance in applied ethics. Prerequisite, Psychology. Two hourse, first semester. 10:25 Tuesday and Thursday. Professor John G. Hill.

- 7. Theism and the Philosophy of Religion. The aim in this Course is to carefully examine the leading ultimate grounds offered as explanations of reality, and to set forth the theistic ground of a supreme, self-existent, personal Being as the only satisfactory explanation. A clear philosophy of Religion is sought by a sympathetic study of the light which recent science sheds upon the problems of nature, man and mind. Modern Naturalism in its suicidal metaphysical implications and its inferiority to explanation by Personal Idealism is treated. The texts used are Iverach and Bowne. Prerequisite, Psychology. Two hours, second semester. 10:25 Tuesday and Thursday. Professor John G. Hill.
- 8. The Evidences and Philosophy of Christianity. The various evidences for the truth of Christianity are canvassed. It is shown how the completion of the moral and religious process in man demands Jesus Christ; and how Christianity is the key to life's philosophy, answering the question: "How can we best explain the mysteries of life?" The many apologetic questions troubling the probing student touching ancient and modern difficulties concerning Christianity are vigorously considered. The text book work is supplemented by frequent lectures and library work. Two hours, throughout the year. Tuesday and Thursday. Professor John G. Hill.

#### Education.

1. Psychology, (Philosophy 1) is prerequisite to all courses in education.

Lectures, Texts, Readings, Original Investigations.

1. The Form and Content of Education. (1) Critical study

of the Psychological Form and Content of Education as it exists in Civilization. This study includes an inquiry into the psychology of progress in Civilization. (2) An examination of Ancient Civilization in order to discover the efficient educating agencies that wrought the practice and theory of living current in those civilizations. Civilization is conceived to be the form of human living existing in any social group,—tribe, community, state, nation—at any given time and in any given place. Two hours, first semester. 8:55 Tuesday, Thursday.

- 2. The Theory and Practice of Education. This course investigates primarily the psychology of the Acts of Learning. It investigates secondarily the form of the subject matter that is to be learned. It inquires thirdly into the psychology of the mind that teaches, and how this mind builds up the Science and Art of Teaching. Two hours, second semester. 8:55 Tuesday, Thursday.
- 3. The History of the Mediaeval Period. An historical and philosophical investigation of the forms of civilization and education which prevailed during the Mediaeval Period, devoting special attention to the forms in which education developed into systems and institutions. Two hours, first semester. 8:00 Tuesday, Thursday.
- 4. Educational Reformers. A review of the work of the so-called Educational Reformers who appeared upon the educational field from Luther down to modern times. This course will be historical and philosophical, touching systems and institutions, and educating agencies. Two hours, second semester. 8:00 Tuesday, Thursday.
- 5. A special course for teachers may be formed, if there should be a demand for it. The course contemplates the discussion of school management, school discipline, and class instruction.

The following Special Education Cources are offered in other departments:

Teachers' Course in English (see English C. 12).

Teachers' Course in French (see French 4).

Teachers' Course in German (see German 5).

Teachers' Course in Latin (see Latin 13).

#### PHYSICAL EDUCATION.

Professor Dean Cromwell.

Elsie Vanderpool, Director of Women's Gymnasium.

Oliver J. Schieber, Assistant in the Men's Gymnasium.

- 1. Systematic class work in gymnastics for men. The work consists of vigorous drill wih dumb-bells, Indian clubs and wands, besides progressive graded work on the various pieces of gymnastic apparatus. Required of all first-year studentts. Four hours, both semesters. Professor Cromwell.
- 2. An advanced course for men combining light and heavy gymnastics. Open to those who have completed Course 1. Four hours, both semesters. Professor Cromwell.
- 3. Outdoor sports and light gymnastics for women; tennis, basket ball volley ball, light work on the ladies' athletic field; recreative games and simple use of apparatus. Four hours, both semesters. Miss Vanderpool.
- 4. An advanced course for women. Advanced exercises with chest weights, dumb-bells, Indian-clubs, ladders and rings. Difficult free work with rhythmical drills for grace and harmony of movement. Open to those who have completed Course 3. Four hours, both semesters. Miss Vanderpool.

Men's classes meet Monday, Tuesday, Wednesday, Thursday, at 2:00, 2:55, and 3:50. Women's classes meet Monday, Tuesday, Wednesday, Thursday, at 10:25, 11:00, and 1:00.

Note.—Four semester hours in Physical Education is the required and also the maximum number for an A.B. degree.

#### POLITICAL SCIENCE.

#### Professor Rochwell D. Hunt.

1. Elements of Political Science. Historic origin of political institutions; theories of the state; nature of sovereignty; the structure and province of government. With lectures, readings, and student reports. Three hours, first semester. 8:55 Tuesday, Thursday.

#### PHYSICS.

# Professor William R. Bowker. Associate Professor Arthur W. Nye. Laboratory Assistant Fred R. Brown.

- 1. General Physics. Electricity and Heat. Lectures 1:05, Monday, Tuesday, Wednesday. Laboratory arranged P.M. Four hours, first semester.
- 2. General Physics. Mechanics and Light. Lecture 1:05 Monday, Tuesday, Wednesday. Laboratory arranged P.M. Four hours, second semester.

These courses are open to all who have completed preparatory physics and trigonometry. They are intended to give the student a thorough grounding in the important laws and principles, together with their proofs and applications. The work is also of such a character as to form a basis for further work in special branches for students of engineering. Instruction is given by three periods of lecture and class-room work and three periods of laboratory work per week.

- 3. Mechanics. An advanced laboratory course continuing course 1, may be taken concurrently with it. Experiments are made along such lines as moment of inertia, uniformly accelerated motion, modulus of rigidity, force of gravity, etc. Four periods of laboratory work per week, with occasional lectures. Two hours, either semester. Hours to be arranged.
- 4. Shop Work. Instruction in the use of wood and metal working tools and machinery, including cutting, filing, drilling, tapping, polishing, screw cutting, and elementary lathe work. Two or four periods in laboratory, one or two hours, either semester. Hours to be arranged.
- 5. Applied Electricity. A course in the principles and applications of electricity. Prerequisite, Physics 1. Two hours, second semester. 8:55 Thursday, Friday.
- 6. Electrical Measurements. A laboratory course in which the theory and methods of exact electrical determinations are taken up, including the determination of resistance by various methods, galvanometer constants, measurement of current and electromotive force, insulation tests, hysteresis and permeability tests, calibration of instruments, use of condensers, measure-

ment of induction, etc. Six periods per week. Two hours, first semester. 1:05-3:50 Monday, Tuesday.

- 7. Advanced Heat. A laboratory course consisting of work of the nature set forth in Millikan's "Mechanics, Molecular Physics, and Heat." Four periods in the laboratory with occasional lectures. Hours to be arranged. Two hours, either semester.
- 8. Advanced Light. A laboratory course involving considerable work with the spectroscope and photometer. Hours and credits to be arranged.

#### SPANISH.

#### Professor Katherine T. Forrester.

- 1. Elementary Spanish. Monsanto's Grammar with Worman's and Bransby's Readers. Thorough drill in pronunciation and grammatical forms. Exercises in reading and writing. Umphrey's Spanish prose composition with conversation on the text. Doce Cuentos Escogidos, Fortuna and El Capitan Veneno, are read. Five hours, both semesters. 8:55 Monday, Tuesday, Wednesday, Thursday, Friday.
- 2. Advanced Spanish. Umphrey's Prose Composition is finished. Matzke's Reader, Alarcon's Novelas Cortas and El Si de las Ninas are read. Three hours, first semester. 11:20 Monday, Wednesday, Friday.
- 3. Conversation. Ibarra's Practical Conversation Method and items taken from Spanish newspapers. Two hours, first semester. 11:20 Tuesday, Thursday.
- 4. Advanced Reading and Composition. A. Ramsey's Progressive Exercises. Taboada's Cuentos Alegres, Marianela and Gil Blas are read. Three hours, second semester. 11:20 Monday, Wednesday, Friday.
- 5. Advanced Conversation. Ibaarra's Practical Conversation Method. Two hours, second semester. 11:20 Tuesday, Thursday.
- 6. Advanced Grammar and Contemporary Novels. Ramsey's Spanish Grammar, novels by Alarcon, Palacio Valdes, Pardo Bazan, Niniez de Acre, Valera, Galdos and others are read. Written work on novels and conversation in Spanish. Three hours, first semester. 11:20 Monday, Wednesday, Friday.

- 7. Modern Novels. Fernan Caballero, Tomayo y Baus, Becquer Esproneda, etc. Written work and conversation on text. Three hours, second semester. 11:20 Monday, Wednesday, Friday.
- 8. Classical Spanish. Readings from Don Quixote, and others of Cervante's works, Lope de Vega, Calderon, etc. Discussions of same in Spanish. Two hours, first semester.
- 9. History of Spanish Literature. Reference reading in Gil y Zarate, Zitz-Maurice Kelly and Tichnor. Short lectures in Spanish on prominent authors and important periods. **Two** hours, second semester.

Major Work: Courses 1-9.

#### ENGINEERING.

The requirements for admission to the Engineering Courses are stated on page 27.

The subjects required for graduation are given under the separate courses.

#### ENGINEERING DRAWING.

### Associate Professor Arthur W. Nye.

- 1. Drawing. Deview of projection and developments, lettering, blueprinting, machine drawing and office practice. Lectures and draughting. Six hours, first semester. 10:25 and 11:20 Tuesday, Thursday.
- 2. Drawing. Conventional signs and symbols, topographical maps, tinting and shading. Six hours, second semester. 10:25 and 11:20 Tuesday, Thursday.
- 3. Descriptive Geometry. Lectures and drawing, including representations of lines, surface and solids, with their intersections, tangencies and developments; shades and shadows, linear perspective and stereotomy. Five periods, both semesters. 8:00-8:55 Tuesday, Thursday. Lecture 11:20 Thursday.
- 4. Machine Design. Advanced course in mechanical and electrical design; detailing, working drawings of complicated machine details, study of standard commercial machine parts, shop practice, strength of parts, use of tables, formulae and slide rule, gearing, estimating, specifications, structural iron and steel, lectures and practice. Two hours class. Three hours drafting,

first semester. Class 8:55 Tuesday, Thursday. Drafting, 1:05-4:30 Thursday.

#### CIVIL ENGINEERING.

Professor John B. Johnson.

Field-Work Assistant Walter E. Jessup. Field-Work Assistant Oliver J. Schieber. Field-Work Assistant Arsen H. Avakian.

The great industrial development of recent year in every part of the United States has created a large demand for trained Civil Engineers. The course in Civil Engineering has been made quite broad in order to meet this demand, by providing a sufficient foundation for the wide range of practice now included under Civil Engineering.

Very few college students know in what part of this wide field their life work will lie. Because of this, and the great difficulty of mastering fundamentals during the stress of professional work, it has seemed best to provide a broad university preparation and to defer specialization to the period of active employment.

The course is designed to give a practical as well as theoretical training. Nearly as much time is spent in the drawing room, laboratory, and field, as in the lecture room.

By consulting the schedule following it will be seen that considerable time is devoted to Mathematics, English, Modern languages, and Sciences. Of the more technical work, the Field Engineering is given very full treatment in lecture room, office and field.

In the third year Theoretical Mechanics is thoroughly developed and forms the basis for the designing and construction which occupies the remainder of the course. The importance of correct methods of thought and practice is constantly inculcated.

A very large amount of important Engineering work, which is greatly diversified by the proximity of harbors, mines, irrigation and water supply projects, several trans-continental railway terminals, and a very extensive electric power, and interurban railway system, is continually going on in the vicinity

of Los Angeles. Students in this Department, accompanied by Instructors, are required to inspect much of this work, and to present written reports on what they have seen.

## REQUIRED COURSE IN CIVIL ENGINEERING. FIRST YEAR.

First Semester.	Lab.	Class
	Hours.	Hours.
Math., 3, 6—Alg. and Trig	. , .	4
Chemistry, 1—General		3 .
Chemistry, 3	. 6	
Civil Engr., 1—Surveying theory		2
Civil Engr., 2—Field work	. 3	
Engr. Drawing, 1	. 6	
Eng. A., 1		- 3
Second Semester.		
Math., 7—Analytical Geom		5
Chemistry, 2		3
Chemistry, 4	. 6	
Civil Engr., 1		- 2
Civil Engr., 2	. 3	
Engr. Drawing, 2	. 6	
English, A 1		3
SECOND YEAR.		
First Semester.		
Math., 8—Calculus		. 3
Geology, 2—Mineralogy		2
Engr. Drawing, 3—Descrip. Geom		
Civil Engr., 13—Materials		3
Physics, 1—Elec. and Heat	. 3	3
French or Spanish		5
Second Semester.		
Math., 9—Int. Calculus		3
Physics, 4—Shop	. 2	
Geology, 2		2
Civil Engr., 3—Higher Surv	. 3	1
Engr. Drawing, 3	. 4	1
Physics, 2-Mech. and Light	. 3	3
French or Spanish		5

# THIRD YEAR. First Semester.

	Lab.	Class
	Hours.	Hours.
Civil Engr., 8-Anal. Mech		3
Civil Engr., 9-Mech. of Materials		2
Civil Engr., 15—Graph. Statics	. 2	1
Civil Engr., 5-R. R. Engr. Theory		2
Civil Engr., 6-R. R. Engineering Practice	. 6	
Elect. Engr., 1—General		5
Thermodynamics		2
Second Semester,		
Civil Engr., 8		2
Civil Engr., 9		3
Civil Engr., 16—Stresses		2
Elect. Engr., 5—Steam Engr		3
Civil Engr., 10—Hydraul		3
Civil Engr., 7-R. R. Economics		2
Engr. Drawing, 4-Mach. Design		2
FOURTH YEAR,		
First Semester.		
Civil Engr., 18—Struct. Design	. 4	1
Civil Engr., 15—Foundations		2
Geology, 1		2
Math., 10—Astronomy		2
Civil Engr., 17—Engr. Lab		
Civil Engr., 11—Water Supply		2
Civil Engr., 12—Sanitary Engr		2
Civil Engr., 21—Canals, rivers, harbors		1
Civil Engr., 23—Thesis		. 1
Second Semester.		_
Civil Engr., 18	. 4	1
Civil Engr., 20—Tunneling, mining		1
Geology, 1		2
Math., 10		2
Civil Engr., 4—Geodetic Surveying		2
Civil Engr., 22—Contracts and Specifications		2
Civil Engr., 19—Highway Engr		2

#### COURSES IN CIVIL ENGINEERING.

#### Surveying and Geodesy.

- 1. Surveying. An elementary course including use and care of surveying instruments and the methods of making land surveys; measuring angels with the transit; leveling for profiles; establishing a meridian with solar compass or solor attachment. Two hours, throughout the year. 1:05 Monday, Tuesday
- 2. Surveying Field Work. The practical adjustment of surveying instruments; the proper method of keeping clear field notes, and the working of field problems with chain, tape, level, plane table, transit, compass, etc. The work in the drawing room consists of platting the field notes and making profiles and maps. Three periods, throughout the year. Course 1 to be taken concurrently. 2:00-4:30 Thursday, Friday.
- 3. Higher Surveying. Topographical surveys with plane table and stadia; city surveys; use of sextant and barometer. Lectures, recitations and field work. Four periods, second semester. 2:00 Wednesday; 1:05-4:30 Tuesday. Prerequisites, Courses 1 and 2.
- 4. Geodetic Surveying. A course treating of methods of conducting geodetic surveys including determination of the form of the earth, base line measurements, triangulation, precise leveling, least squares and astronomical problems. Two hours, second semester.

# Railroad Engineering.

- 5. Railroad Engineering. A course including the theory of curves, switches and sidings; the making of reconnoissances, and preliminary and location surveys; the computation of earthwork and determination of structures, and making final estimates of cost. Two hours, lectures and recitations, first semester. 10:25 Tuesday, Thursday. Prerequisites, Courses 1 and 2.
- 6. Railroad Engineering Field and Office Work. Practice in laying out curves, and making complete surveys for a short line of railway and doing the office work. Eight periods, first semester. 1:05-4:30 Monday, Tuesday.

Course 5 must be taken concurrently.

7. Economics of Railway Location. The influence of grades,

curves, tunnels, rise and fall, etc., is studied with regard to effect upon cost and operating expenses of steam and street railways. Two hours, second semester. 10:25 Tuesday, Thursday. Prerequisite, Course 5.

#### Mechanics and Hydraulics.

- 8. Analytical Mechanics. The mathematical treatment of statics, kinematics and dynamics, including determination of center of gravity, moment of inertia, centrifugal force, etc. Three hours, first semester; two hours, second semester. Prerequisite, Mathematics 8 and 9. 8:55 Monday, Tuesday, Wednesday, first semester; Monday, Tuesday, second semester.
- 9. Mechanics of Materials. A mathematical course in resistance and elasticity of materials, stresses and strains, shearing, flexure, beams, columns, shafts. Two hours, first semester; three hours, second semester. Course 8 must be taken concurrently. 11:20 Thursday, Friday, first semester; Wednesday, Thursday, Friday, second semester.
- 10. **Hydraulics.** Hydraulic pressure, strength of pipes, flow of liquids through pipes and orifices and over weirs, losses of head, flow of water in open channels, dams of masonry and earth, hydraulic motors and machinery. **Three hours, second semester.** 11:20 Monday, Wednesday, Friday. Prerequisite Course 9.
- 11. Water Supply and Irrigation Engineering. Determination of quantity and quality of supply, water purification, and conservation, design of a system. Diversion, conveyance and application of irrigation water. Two hours, first semester. Prerequisite Course 10.
- 12. Sanitary Engineering. Drainage of buildings, treatment and disposal of sewage, sewer systems for cities. Two hours, first semester. Prerequisite Course 10.

### Engineering Construction.

13. Materials of Engineering. A study of the manufacture and properties of stones, cements, concretes, timber, iron, steel, etc., with special attention to determination of safe working stresses. Three hours, first semester. 2:00 Monday, Tuesday, Wednesday.

- 14. Foundations. The foundation of bridges and buildings, coffer dams, piers, pile-driving, caissons, masonry and re-enforced concrete arches, retaining wall. Two hours, first semester. Prerequisite, Courses 9 and 14.
- 15. Graphical Statics. The graphical determination of the stresses in engineering structures. Three periods, first semester. 10:25 Monday, Wednesday, Friday. Course 8 must be taken concurrently.
- 16. Stresses in Framed Structures and Arches. The analytical and graphical methods applied to determining stresses in roof and bridge trusses, and masonry arches. Three periods, second semester. 10:25 Monday, Wednesday, Friday. Prerequisite Course 15.
- 17. Engineering Laboratory. Testing of engineering materials. Three periods, first semester. Prerequisite Course 14.
- 18. Structural Design. Theory for and practice of making complete designs for steel bridges, roofs, and other structures. Lectures, drawing and computing. One hour lecture, four hours draughting throughout the year. Prerequisite, Courses 9, 13 and 16.
- 19. Highway Engineering. Roads and streets of broken stone, paved and oiled roads, location of new roads. Two hours, second semester.
- 20. Tunneling and Mining. Excavation, lining, ventilation and drainage of tunnels and mines; sinking shafts, pumping and hoisting. One hour, second semester. Prerequisite. Course 11.
- 21. Canal Construction and River and Harbor Improvement. A short course of twenty hours including canals, locks, breakwaters, levees, etc. First semester. Prerequisites, Courses 10 and 14.
- 22. Contracts and Specifications. A synopsis of the law of contracts as applied to Engineering construction and a study of typical contracts and specifications. The course includes riparian rights, boundary lines, survey descriptions, etc. Two hours, second semester.
- 23. Thesis. A study of some special engineering problem or an independent investigation by the student. The subject must be approved by the professor in charge of the department of Civil Engineering and by the professor who would have imme-

diate direction of the work proposed, not later than November 1st of the Senior year. It must be completed and submitted by June 1st of the same year. One hour, second semester.

# ELECTRICAL ENGINEERING.

### Professor William R. Bowker. Associate Professor Arthur W. Nye.

The courses offered in this department are designed to fit young men to engage in the operation and production of electrical apparatus, also in the application of electricity to the Arts and Sciences.

During the Freshmen and Sophomore years there is laid a broad foundation, consisting of Physics, Mechanics, Chemistry, Surveying and Language. During the Junior and Senior years special studies in electricity and applied electricity are pursued. These involve the theory of electricity and magnetism, with application to direct current machines and measuring instruments, the theory of alternating currents and alternating machinery and apparatus, comprising alternators, synchronous and induction motors and rotary convertors. Courses are also given in Electrical Distribution and Transmission, Lighting and Power plants.

The work of the Engineering Laboratories is co-ordinate with the lecture and class room and aims to give a practical knowledge of electrical measurements and the handling of electrical machinery.

Southern California, in its present state of rapid development, offers exceptional opportunity to the hydraulic and electrical engineer. The work of the University is splendidly supplemented by the large amount of work under construction. The engineers and superintendents in charge of these have been very courteous in aiding the classes on their various trips of inspection. The various power and electric plants in and about Los Angeles afford excellent examples of electric development of high tension and power transmission not surpassed by any other in the United States. Various excursions to these plants and lectures by superintending engineers are some of the features enjoyed by the students of the dpartment.

# REQUIRED COURSE IN ELECTRICAL ENGINEERING.

# FIRST YEAR.

# First Semester,

Lah Class

	Lab.	Class
	Hours.	Hours.
Math., 3, 6—Algebra, Trig		5
Engr. Drawing, 1	6	
Chemistry, 1—General		3
Chemistry, 3	. 6	
English, A 1		3
Civil Engr., 1—Surveying, Theory		2
Civil Engr., 2—Surveying, Field		
Second Semester.		••
Socola Soliestol,		
Math., 7—Analytical Geometry		5
Engr. Drawing, 2	. 6	
Chemistry, 2		3
Chemistry, 4	. 6	
English, A 1		3
Civil Engr., 1		2
Civil Engr., 2		
SECOND YEAR.		
First Semester.		
French or Spanish		5
Physics, 1—Elec. and heat		3
Math., 8—Calculus		3
Engr. Draw., 3—Descrip. Geom	. 4	1
Physics, 4—Shop	. 4	
Civil Engr., 13-Materials		3
Second Semester.		
French or Chanish		5
French or Spanish		3
Physics, 2—Mech, and light		3
Math., 9—Int. Calculus		3 3
Elect. Engr., 11—Shop		5
Physics, 4—Shop		• •
Physics, 5—Electricity		2

# THIRD YEAR.

TITLE TELL.		
First Semester.	Lab.	Class
	Hours.	Hours.
Elect. Engr., 1—General		5
Physics, 6—Elect. Measurements		
Civil Engr., 9-Anal. Mech		3
Civil Engr., 10-Mechanics		2
Engr. Drawing, 4-Mach. design	. 3	2
Elect. Engr., 4—Thermodynamics		2
Second Semester.		
Elect. Engr., 1		5
Elect. Engr., 2-Dynamo Lab	. 6	
Civil Engr., 9		2
Civil Engr., 10		3
Elect. Engr., 5—Steam Engr		3
Elect Engr., 6—Excursions		
FOURTH YEAR.		
First Semester.		
Elect. Engr., 3—Alter. Currents		5
Elect Engr., 7—Dyn. Lab., A. C. Mach		
Elect Engr., 6—Excursions		
Elect. Engr., 8—Elect. Design		2
Economics, 1		3
Elect. Engr., 9—Engr. Lab		
Elect. Engr., 12—Thesis		
Second Semester.		
Elect. Engr., 3		5
Elect. Engr., 7		
Elect. Engr., 6		3
Elect. Engr., 10—Commercial Elect. Engr		4
Economics, 2		3
Civil Engr., 11—Hydraulics		3
Electrical Engr., 12		

#### COURSES IN ELECTRICAL ENGINEERING.

1. Dynamo Electric Machinery. This course comprises a study of the theory and operation of direct current apparatus of all kinds, motors, generators, power plant installations, trans-

mission lines, storage batteries, lamps, controllers, etc., methods of testing and operation, theory of commutation and speed control. Alternating currents are taken up briefly towards the end of the year. Junior Year. Five hours, both semesters. 10:25, Monday, Tuesday, Wednesday, Thursday, Friday.

- 2. Dynamo Laboratory. Study is made of the performance of direct current machines by means of their characteristic curves; efficiency, regulation and heat tests are run; and various methods of operating generators and motors and their auxiliary control apparatus are studied. Junior Year. Six periods. Second semester. 1:05-3:50 Monday, Tuesday.
- 3. Alternating Currents. A mathematical study of theory and applications to generating, transforming, utilizing machines. Senior Year. Five hours, both semesters. 11:20 Monday, Tuesday, Wednesday, Thursday, Friday.
- 4. Thermodyamics. Laws of gases; steam and its uses; heat engines and engine cycles; combustion, etc. Junior Year. Two hours, first semester. 8:00, Tuesday, Thursday.
- 5. Steam Engineering. A consideration of the different types of prime movers, especially steam and gas. Study is made of the cost of production of power and general layout of power plants. Junior Year. Three hours, second semester. 8:55 Monday, Tuesday, Wednesday.
- 6. Excursions. Trips to various power plants and factories with a view to observing methods and processes. Written reports required of students.
- 7. Dynamo Laboratory. Tests and study of alternating current apparatus. Senior Year. Six periods. Both semesters.
- 8. Electrical Design. Study of types of electrical machinery; calculations and detail drawings. Senior Year. Two periods class, three periods drafting. First semester.
- 9. Engineering Laboratory. Testing of strength of materials, engine and boiler efficiencies, etc. Senior Year. Three periods.
- 10. Commercial and economic aspect of the Elect. Eng. industry and details of efficient organization and administration; and, if time permits, street railway engineering will be dealt with. Four hours, second semester.
- 11. Workshop Mechanics. A consideration of the materials of machine construction, the methods of working them and

workshop appliances. Three hours, second semester. 8:00 Monday, Wednesday, Friday.

12. Thesis. Original investigation and study of some special problem.

#### MINING AND CHEMICAL ENGINEERING.

#### Professor Laird J. Stabler.

The University is at present offering two years of the course in Mining and Chemical Engineering. The work, as outlined, gives thorough training in the fundamental subjects of mathematics, chemistry, physics, drawing and the elements of engineering. The foundation laid in the two years, prepares the student to enter any of the good mining colleges, and complete the work of the Junior and Senior years, specializing in Mining and Metallurgy.

# COURSES IN MINING OR CHEMICAL ENGINEERING.

#### Freshman Year.

	First	Second
	Semester.	Semester.
Math., 7, 6, 3	5	5
Chem., 1, 2, 3, 4	5	5
Civil Engineering, I	2	2
Civil Engineering, II (Field Work)		3
Engineering Drawing, 1, 2	4	4

### Sophomore Year.

	First	Second
	Semester.	Semester.
Math., 8, 9 (Calculus)	4	4
Geology, 2-Mineralogy	2	2
Eng. Drawing, 3-Descriptive Geom	1	1
Eng. Drawing, 3	4	4
Physics, 1, 2		4
Chemistry, 5, 8		4

# Summer Session

of the

#### COLLEGE OF LIBERAL ARTS.

The Summer Session of the University for 1908 was held at the College of Liberal Arts, Monday, June 24th, to Saturday, August 3d.

Courses in the Summer School are designed to meet the needs of the collowing classes of students:

- 1. Undergraduates and graduates of a College or University.
- 2. Teachers, including those in public schools, private schools and other institutions of learning.
- 3. Auditors, those desiring to hear courses of lectures or occasional lectures (not for credit).
- 4. Preparatory and Special Students who are deficient in entrance credits or who wish to make a study of some particular subject.

For entrance no formal examinations are required. Students will be admitted to such courses only as their previous training has prepared them to pursue profitably.

Opportunity will be given those who are compelled to enter late to make up their work.

Instruction will be given by the regular members of the University faculty and by special lecturers from other institutions. The University library, and the physical and biological laboratories, with their new equipment, are open to the students in the Summer School.

Los Angeles enjoys, during the summer months, an equable climate of pleasant days and cool nights, affording a rare opportunity of combining recreation and study. Attractive mountain, beach and island resorts are within a few hours of the city by electric car lines.

# COURSES OF INSTRUCTION. SUMMER SESSION 1909.

#### DEPARTMENT OF BIOLOGY.

## Professor Ulrey.

#### Assistant Professor Life.

- 1. General Botany (College).
- 2. General Zoology (College).
- 3. Systematic Botany.
- 4. Systematic Zoology.
- 5. General Botany (Preparatory).
- 6. Special Courses (for making up deficiencies in Botany and Zoology).

#### DEPARTMENT OF CHEMISTRY.

#### Professor Stabler.

- 1. Elementary Chemistry.
- 2. Qualitative Analysis.
- 3. Quantitative Analysis.

### DEPARTMENT OF ENGLISH.

## Professor Dixon.

1. The History of the English Language. Text-book, Emerson's History of the English Language.

### DEPARTMENT OF FRENCH.

Professor Von Fingerlin.

- 1. Elementary French.
- 2. Modern Authors.
- 3. Classical French.

# DEPARTMENT OF ECONOMICS AND SOCIOLOGY. Professor Hunt.

- 1. Principles of Economics.
- 2. Labor Problems.

### DEPARTMENT OF GERMAN.

### Professor Von Fingerlin.

- 1. Elementary (Preparatory). Second semester.
- 2. Modern Stories and Plays (Preparatory). Second semester.
  - 3. Schiller, Drama and Ballads.

#### DEPARTMENT OF HISTORY.

Professor Knoles.
Professor Dixon.
Professor Hunt.

- 1. American History (Professor Knoles).
- 2. Civics (Professor Knoles).
- 3. Mediaeval History (College) (Professor Knoles).
- 4. English History in English Literature, with special attention to Shakespeare's plays (Professor Dixon).
- 5. Political Development of Modern Europe (Professor Hunt).
- 6. History of California and the Pacific Slope (Professor Hunt).

# DEPARTMENT OF ITALIAN. Professor Von Fingerlin.

- 1. Elementary Italian.
- 2. Modern Authors.
- 3. Classical Italian.

# DEPARTMENT OF LATIN. Assistant Professor Willett.

- 1. Elementary Latin (2d semester).
- 2. Caesar (1st semester).
- 3. Caesar (2d semester).
- 4. Cicero's de Senectute and Horace's Epodes.
- 5. Latin Comedy.

# DEPARTMENT OF MATHEMATICS. Professor Arnold.

- 1. Elementary Algebra.
- 2. Advanced Algebra.
- 3. Geometry.
- 4. Trigonometry.
- 5. Analytical Geometry.

# DEPARTMENT OF PHYSICS AND ENGINEERING. Professor Bowker. Professor Nye.

- 1. Elementary Physics (Preparatory) 1st semester.
- 2. Elementary Physics (Preparatory) 2d semester.

- 3. General Physics, Electricity and Heat.
- 4. General Physics, Mechanics and Light.
- 5. General Physics. Advanced Mechanics.
- 6. General Physics, Advanced Electricity.
- 7. General Physics, Teacher's Course.
- 8. Electrical Engineering.
- 9. Elementary Mechanical Drawing.
- 10. Engineering Drawing (1st semester).
- 11. Engineering Drawing (2d semester).

#### DEPARTMENT OF PSYCHOLOGY AND EDUCATION.

#### Professor Hoose.

- 1. Psychology. The nature and forms of mental activities.
- 2. Education, Principles of teaching and school management.

# The College of Dentistry

#### THE COLLEGE OF DENTISTRY.

# Member National Association of Dental Faculties. Calendar 1909-1910.

September 25...Saturday, Examination for removal of conditions.

October 5.....Tuesday, Opening exercise in main lecture room,

8 p. m.

October 6.... Wednesday, Lecture session begins.

October 16.....Friday, Registration of Students closed for Lecture session of 1909-1910.

November 24... Wednesday, Thanksgiving recess begins 6 p. m.

November 29... Monday, Thanksgiving recess ends 8 a. m.

December 23... Thursday, Christmas recess begins 6 p. m.

January 3..... Monday, Christmas recess ends 8 a. m.

February 22...Tuesday, Washington's Birthday recess.

May 18......Freshman and Junior Examinations begin.

June ...... Commencement Exercises.

#### ANNOUNCEMENT, 1909-1910.

The thirteenth annual session of this College will be opened Tuesday evening, October 5, 1909, in the auditorium of the College, corner of Fifth and Wall streets, Los Angeles.

Los Angeles is situated in a country so noted for its beauty and charm of climate that it needs little introduction to the prospective student. Southern California is the garden spot of America, being carpeted with flowers and having many miles of fruit trees possessed of fragrant blossoms which shed their perfume the year around.

Bounding the valley on the north some twenty miles away snow-capped peaks rise and stand like sentinels guarding the valley below. One can climb these titantic peaks in winter and, standing on their summit, view the beautiful orange groves and watch the rolling waves of the Pacific, some forty miles away.

#### LOS ANGELES.

Los Angeles, the metropolis of Southern California, is situated in the San Gabriel Valley, the fame of which has been spread broadcast throughout the world.

During the past five years the population has increased at the rate of three thousand a month and we now have a city of about 300,000 inhabitants.

It is a city of modern business blocks and beautiful homes, and is conceded to have the finest street railway system of any city in the world.

While the entire country is one grand park, yet the city has set aside sixteen plots of ground, comprising in all 3720 acres, as play grounds. One of these is the largest municipal park in the world.

With the harbor of Los Angeles at San Pedro now practically completed and the Panama Canal assured in the not distant future, the commercial supremacy of this city is secure for the great Southwest. Along with the commercial the educational is keeping pace. As showing the trend in this matter we may note that the growth of the University of Southern California as a whole has been phenomenan. The number of students has increased from 300 to 1400 within five years, and the income and prosperity of the University have been quadrupled.

A postal card addressed to the Information Bureau of the Los Angeles Chamber of Commerce for literature concerning Southern California will bring a handsomely illustrated 84-page booklet, with maps and information that cannot fail to be a revelation to those who have not had the experience of a trip to California.

Eastern students can come here and gain an education at no greater expense than if they remained at home, and at the same time enjoy all of the advantage of the surroundings.

During the winter months from forty to fifty thousand tourists from the East seek the sunshine and pleasure of our climate, and during the summer nearly as many more some to the cool coast from the interior States. We have neither excessive cold nor heat, but every day is a pleasant one. It is not only an ideal country for the enjoyment of health and

recreation, but the conditions which make it favorable for the tourist render it a student's Paradise,

The rapid growth in population of this section opens many opportunities for dental practice—thus enabling our graduates to advantageously locate themselves where their school is best known, and where their acquaintance and following has already been established.

Diplomas from this College are recognized by the Boards of Examiners in all States.

We number among our faculty some of the most eminent teachers in the United States. These men have come to Southern California because of the attractive surroundings, and we have been fortunate in securing their services. The classes at the present time not being large, the student comes into personal relation with these teachers. This is of great advantage over being a member of large classes.

The College is incorporated, not for profit, but as an educational institution strictly. Its board of control has members appointed by the dental societies of Southern California, the alumni of the College and the University. The income of the College, from whatever source, is expended for equipment and instruction, all for the benefit of the students and not for paying dividends to stockholders.

#### SOCIAL LIFE.

Ample arrangements have been made for the students' recreation and comfort. Strong athletic teams are supported, which give diversion from the routine of study. The students also maintain several societies of social character; also an orchestra and glee club.

### THE COLLEGE, BUILDING AND EQUIPMENT.

The progressiveness of this young College is shown in the modern building and equipment which were acquired two years ago. The building is a beautiful light pressed brick structure, erected to suit our special needs. The plans were suggested by two of our professors, who traveled throughout the East for several months gaining new ideas.

The location is directly in the center of the city, being at

the corner of Fifth and Wall streets, and within three blocks of the Pacific Electric Union Depot, where probably more passengers are handled than at any other electric railway depot in America.

Five car lines pass the College door, transferring from all parts of the city.

The Infirmary faces the north (an ideal light), and is a large, beautiful room, with ample light, having broad, high windows. The interior finish is in beautiful Oregon pine, stained golden oak. The walls are wainscoated six feet high with white tile, and are tinted above in colors to harmonize. Polished wooden floors, ample wash basins with hot and cold water, sterilizers, etc.

It is equipped with forty-two new leather-covered Columbia and Morrison chairs, and at every operating chair is a fountain cuspidor with saliva ejector, a glass-top surgical table, glass-top swinging bracket, gas and plugs for electric engines, furnaces, etc.

A complete locker system in connection with the operative clinic furnishes means for the storage of instruments when not in use. In the fitting up of the operating room, the aim has been to make the appointments as nearly as possible like those of a first-class private office, so that from the beginning of his course the student is familiarized with the conditions he will meet in actual practice.

The balance of the laboratories are of the same beautiful and complete arrangement. Under the one roof there are arrangements for teaching every branch of dentistry, even to a dissecting room, so that students are not required to leave the building and thus lose valuable time.

A large library, well equipped with books and over 3000 museum specimens, is a valuable adjunct.

There is no expense spared in equipping the College with appliances which will add to the students' comfort and the ability to better his education. While we now have an equipment of electric lathes, furnaces, microscopes, chemical laboratory appliances, physiological apparatus, projection lantern, etc., etc., which is so complete that the only criticism that has been made upon it is that the student is here afforded luxuries which he cannot own when he leaves our walls.

#### DEPARTMENTS.

#### OPERATIVE DENTISTRY.

# Professor Ford. Associate Professor Jordan. Associate Professor Gray.

In this department the student is instructed in the latest methods of operative procedure, the fundamental principles being taught in the Freshman and Junior Technic course.

All of the different conditions, materials and methods of manipulation are considered, so that the student when graduated is competent to enter into active practice and give his patients the very best of dental services. In order to develop the judgment and diagnostic ability of the student the Seniors during the second semester are required to study each case presented to them in the Infirmary. When they have decided upon the best method of procedure they then call one of the instructors, who will confirm or correct their opinion.

If qualified at the beginning of the second semester, the Junior students are admitted to the Infirmary for practical operations.

A very thorough course is given in the preparation of cavities and construction of porcelain and gold inlays.

In connection with this department, Professor Jordan will give a course of lectures on The Care and Management of Children's Teenth.

This course will consider pre-natal influences, and the nutrition and development of the child as relating to the teeth; the treating, filling and extraction of children's teeth; the disturbances found in the oral cavity incident to the first dentition, and the management of children in the office.

#### PORCELAIN.

# Professor Eshelman, Dr. Goodman, Dr. Hopkins.

Porcelain is attracting more and more attention. It is the most artistic method of restoring teeth or parts of teeth. Cavities in the natural teeth can be filled with porcelain inlays, which cannot be detected.

Students of this school will be expected to attain a high degree of proficiency in the manipulation of porcelain. The

College is equipped with Townsend, Hammond and Custer electric furnaces, a large oil furnace for continuous gum work, fifteen Jenkins gas furnaces and machines for the teaching of the Taggart system of Gold Inlays. Students are taught how to construct inlays by the use of Gold and Platinum matrics, the different blending of colors, and also a complete course of lectures is given covering the entire subject.

By the use of the Townsend Forms we are able to give the students a great deal more technical instructions in Porcelain, Crown and Bridge work, than they ordinarily receive. One is not only taught how to use the facing, in connection with the frame work, but how to carve the entire crown, which is more artistic and stronger, not being divided by metal pins. The Seniors will do practical work in the Infirmary. Our clinic is from the class of people who call for the very best and latest class of operations, and each student is required to construct Gold and Porcelain Inlays and Porcelain Crowns.

Opportunity is afforded the Seniors for making a technic continuous gum case. This is optional with the student.

#### OPERATIVE TECHNICS.

# Professor H. Gale Atwater, Thos. A. Lynch, D. D. S.

This important department is given especial attention in our College, for we realize that the future success of the student, as well as the dentist, lies in first instructions.

It is our aim to make this department one of the strongest in the College. The object of this course is to afford a thorough technical training in operative procedures, preparatory to practical work in the Infirmary; to develop manipulative skill and to give the students an intimate knowledge of the tissues upon which they are to operate, of the physical qualities and adaptation of the materials to be used, and facility in the use of instruments by systematized practice upon teeth out of the mouth.

Special attention will be given to a study of pulp chambers and root canals, their number, size, form, and their relation to the outer surface of the teeth. Sections of the natural teeth will be prepared by each student in such a manner that these features will be clearly shown.

The student will construct models carrying tooth forms of

natural teeth, upon which operations will be performed as in actual practice. This will consist in the preparation of cavities and a study of their classification and forms; the study of enamel and direction of cleavage on different parts of the crowns of the several teeth with special reference to the best form and finish of margins of cavities for filling; the cutting of dentine and the various methods employed in anchoring fillings: the removal of carious tissue; the management of pits and fissures and the general shaping of the cavity. Instruction will also be given in the application of the rubber dam, the methods employed in gaining space, the use of clamps, wedges, separators, etc. In conjunction with practice in cavity preparation, there will be a study of filling materials and their manipulation: the various filling materials in use and their physical properties, indication for their use and the relative value of each.

This course is designed to thoroughly ground the student in the principle of operative dentistry and prepare him to intelligently prosecute the practical work of the Infirmary.

## COMPARATIVE DENTAL ANATOMY.

#### Professor Bebb.

This course covers a comparison of the teeth and surrounding tissues of a man with those of the lower order of animal life. This is made more interesting and instructive to the student by the collection of crania, numbering 1500 specimens (which our museum affords), and a complete series of lantern slides for illustrating the lectures.

#### SURGERY AND ANESTHESIA.

# Professor Lockwood, David D. Thornton, M. D.

The importance of this subject to the dental practitioner cannot be overestimated. A dentist is recognized as an oral specialist. While he may not desire to undertake surgical operations, yet a lack of knowledge upon this subject will reflect upon his ability as a dentist in general.

Particular attention will be devoted to surgical diseases and injuries of the face, mouth, jaws and associate parts.

#### ORTHODONTIA.

#### Professor Robinson.

This subject is taught during the Junior and Senior years. During the Junior year the course consists of a series of lectures illustrated by numerous lantern slides. Beginning with normal occlusion the lectures take up the different classes of mal-occlusion, special attention being given to diagnosis and treatment. This is followed by several lectures on retention followed by a course in model and appliance making.

In the Senior year the instruction is entirely clinical and is given at the individual chair in the Infirmary.

# HISTOLOGY—DENTAL HISOLOGY—BACTERIOLOGY—GENERAL PATHOLOGY.

#### Professor Leonard.

In our new laboratory, equipped with thirty-five new microscopes and every appliance and convenience, these departments are conducted in such a manner as to be of great benefit to a dntal student. Histology and Dental Histology are given in the Freshmen year, Pathology in the Junior, and Bacteriology in the Senior year.

# DENTAL PATHOLOGY, MATERIA MEDICA AND THER-APEUTICS.

# Professor W. C. Smith.

The instruction in this branch will consist of two lectures each week to the Junior and Senior students, embracing a study of all pathological conditions of interest to the dental practitioner, together with a general application of the therapeutic agents indicated in the treatment of such conditions.

#### DENTAL JURISPRUDENCE.

# Eugene Overton, Esq.

The lectures on Jurisprudence include qualification and duties of expert witnesses, the importance of dental records, etc., as a means of identification, the limitations of dental practice, the qualifications required, and the liabilities incurred by those who administer anaesthetics, the penalties that may be suffered, and the defense to be made in case of real or supposed malpractice, and the liability in case of infection from instruments; the

requirements of the California law and the laws of other states respecting the practice of dentistry, the steps necessary to become legal practitioners, the duties and liabilities of dentists with reference to the law, etc. This course will be followed by an examination at the end of the first semester.

#### GENERAL MATERIA MEDICA AND THERAPEUTICS.

Professor T. C. Myers.

Professor Myers will give one lecture a week to the Junior Class.

A study of definitions, abbreviations and termminology used, the nature of disease, the source of drugs in nature, preparations made from crude drugs, methods of administering medicines; agencies that modify their action; the art of prescribing; general classification of drugs; their physical, chemical and poisonous properties, dosage and antidotes, the therapeutic application.

Special attention is given to those drugs that are most valuable in the practice of dentistry.

#### EXTRACTION AND ANAESTHETICS.

#### Dr. A. A. Shaw.

This course embraces a series of lectures upon the principles and practices of extracting, together with the use of the various and general anaesthetics. With a well equipped Extracting room and abundant clinical material, the student is afforded ample opportunity of becoming skilled in this work. This course will be given in the Junior and Senior years.

#### PHYSIOLOGY.

# Professor Jenks, Professor Pallette, Dr. Tebbetts.

The course of Physiology is given during the first and second years. The work consists of a systematic course of lectures, recitations and demonstrations.

The subjects of Cells and Tissues, Blood and the Circulatory System, are first taken up, and later the course is devoted to the study of the Alimentary Canal Excretory Organs, Nervous System, Organs of Special Sense, and Organs of Reproduction. This department will be strengthened this year by the addition of a complete equipment for laboratory demonstration.

#### PROFESSIONAL ETHICS AND HYGIENE.

#### Professor J. D. Moody,

Prof. Moody will deliver a course of lectures on these very important subjects. The personal and ethical conduct of the student before and after his graduation have quite as much to do in determining his standing and success in the community, as do his knowledge and technical skill. Attendance at the society meetings is required.

#### CROWN AND BRIDGE WORK.

#### Professor Bowman.

Crown and bridge work pertains both to the operative and the prosthetic, and yet it occupies such an important field of dentistry that the College deemed it wise to make of it a separate department.

Students will receive a complete course in Crown technique, as well as lectures during their Freshman year. Juniors will receive a complete course in Bridge technique during the first semester, and will do practical work in the Infirmary during the balance of the year. Seniors will perform practical work in the Infirmary. The principles of construction of all of the various forms of crowns and bridges at present in use will be taught, also a study will be made of the stress applied by the muscles of mastication to the teeth, both singly and collectively, with its bearing upon crown and bridge construction, including the conditions under which bridges should or should not be used. This department is especially well equipped with large drawings of all descriptions, illustrating this branch. The clinical facilities are excellent, requiring Porcelain and Gold Crowns and Bridges.

#### DENTAL ANATOMY.

#### Professor Bebb, Dr. Packard,

This coming term will introduce the use of lantern slides for the study of dental anatomy.

This method will be of material benefit to the student, as

the different surfaces of each tooth will be enlarged upon the screen.

The student takes up the study of nomenclature, followed by descriptive human dental anatomy, the arrangement of the teeth and the structure of the root canals.

Drawings and the making of cross-sections of the various teeth enter into this course.

#### ANATOMY.

# Professor Kirkpatrick, Dr. Ellis.

Instruction in anatomy is given by means of lectures, recitations, quizzes and practical demonstrations on the cadaver throughout the entire year.

The dissecting room will be in charge of the demonstrators, who will personally superintend the work of the students and examine them upon their own dissections.

Students model the various bones in clay.

#### CHEMISTRY.

#### Dr. Jones.

# I. General Chemistry:

- A. Lectures, Demonstrations and Text Book.
- B. Laboratory Work.

The general principles of inorganic chemistry are reviewed. Especial stress is laid on physical chemistry, so that the student may correctly interpret the modern ideas of matter and the properties of matter. Then the study of the elements and their compounds is taken up; first the non-metals—most of them being prepared in the laboratory. In the study of the metals the application of the principles of chemistry and metallurgy to the dental profession is continually borne in mind.

Qualitative analysis is begun during this year.

# II. Metallurgy:

- A. Lectures and Demonstrations.
- B. Laboratory Work.

In this course only those metals are considered that are of importance to the dentist. These are studied with reference to their physical and chemical properties; their separation and refining, and their dentification. The student is given unknown

compounds of these metals and required to identify both metal and acid radical.

The chemistry of the mouth and salivary digestion is considered, both in lecture room and laboratory. And the course is finished by the student preparing several organic compounds in every-day use in his profession—such as chloroform, aristole iodoform, etc.

# III. Original Work:

Any student wishing to do work along special lines is encouraged to do so, and the resources of the department are placed at his disposal. The possibility of new and better alloys, cements, better oral antiseptics, etc., is suggested.

# PROSTHETIC DENTISTRY. Prof. Eshelman, Dr. Engstrom,

Realizing that there is no branch of dentistry where students are ordinarily so deficient as in the prosthetic department, we have aimed to develop a practical working course in this line, to the end that our graduates may be able to do this class of work in a practical and artistic manner.

From an artistic standpoint we teach the higher possibilities of the art of restoring the features of the face, together with the staining and grinding of the teeth to meet the conditions of the individual type of the patient.

The fundamental principles of atmospheric pressure, leverage, etc., are dwelt upon, that the student may intelligently meet the conditions presented in difficult cases.

Both technical and practical dentures of all kinds are made, such as vulcanite, celluloid, aluminum, Watts metal, weighted rubber, gold and porcelain continuous gum.

Particular attention is paid to the latter, that the student may be able to restore the teeth of patients by the highest type of artificial appliance known to our profession.

Both practical and technic interdental splints are made for fracture cases, as well as obturators and velums for cleft palate cases.

A dentist may be called upon to restore loss of tissue adjacent to the oral cavity, and that our students may know how to do this class of work, they will be taught the making of celluloid ears and noses.

An overabundance of Infirmary patients, together with all modern appliances for doing the work under the direction of the most competent of professors and demonstrators, enables a student to develop a high degree of skill in this department.

#### INFIRMARY.

Our Infirmary and clinical facilities are our special pride. The room is large and beautiful, facing north (the ideal light), and is equipped with every modern convenience. The number of patients who apply here for services is truly phenomenal, and no student need fear that his practical education will be neglected. Last year more than four hundred patients in excess of the number that the students could find time to attend to applied for services. From this great clinic we are able to select for the students all of the operations in any given line in which he may desire to specialize, or where we feel that he needs extra experience and practice.

We have arranged the lecture schedule in such a manner that the students can work with little interruption from nine in the morning until four in the afternoon.

In charge of the work as professors and demonstrators we have a number of teachers of long experience and unquestioned ability. The student has the advantage of the personal contact and instruction of these competent men, and is not taught by students or recent graduates.

#### SCHEDULE OF STUDIES.

Freshman Year—Anatomy, dissecting, physiology, chemistry, chemical laboratory, dental anatomy, comparative anatomy, operative technics, prosthetic technics, crown and bridge technics, histology general, histology dental.

Junior Year—Anatomy, dissecting, physiology, chemistry, organic; metallurgy, general pathology, materia medica, orthodonia, operative technic, operative dentistry, children's teeth; crown and bridge, porcelain, prosthetic dentistry, prosthetic technics, crown and bridge technics, orthodontia technics.

Senior Year—Operative dentistry, prosthetic dentistry, oral surgery, bacteriology, dental pathology, dental materia medica and therapeutics, jurisprudence, ethics and hygiene, children's teeth, anaesthesia and extracting, porcelain.

# CONDITIONS OF ADMISSION

#### SPECIAL NOTICE TO STUDENTS.

Extract from Code of Rules of the National Association of Dental Faculties:

"No college of this Association shall give credit for a full course to students admitted later than ten days after the opening day of the session, as published in the announcement."

In case one is prevented by sickness, properly certified to by a reputable practicing physician, from complying with the foregoing rule, the time of admission shall not be later than twenty days from the opening day.

Candidates for admission will not be permitted to matriculate for any session other than that immediately succeeding the date of matriculation.

For matriculation in the Freshman class without examination the candidate must have 16 units in subjects representing High School work. Applicants may be admitted upon 12 units provided that the 4 additional units shall be made up before entrance upon the second year of the course.

Prospective students who have not these preliminary requirements, and those who are studying with a view to taking up the profession of dentistry, will be advised by the Dean as to the most advantageous course to elect.

In lieu of such units the applicant will be required to pass a matriculate examination, which shall be the equivalent of that forming the basis of the certificate of required preliminary education.

No student can be received who is not present within ten days after the opening day as announced in the Bulletin, except in cases of sickness, when ten days additional will be allowed.

# ADMISSION TO ADVANCED STANDING.

Extracts from rules of the National Association:

That advanced standing in the classes of members of this Association shall not be given to students except in the following instances:

First-Where a student shall have taken a full course in a school a member of this Association, or one especially recog-

nized, or graduation from a reputable medical college, he may receive one year's advanced study.

Colleges of the Association "may receive into the Junior and Senior classes only such students as hold certificates of having passed a satisfactory examination in the studies of the Freshman or Junior years, respectively; this certificate is to be a pledge to any college to which they may apply that a previous year has been spent in the institution from whence they came."

#### REQUIREMENTS FOR GRADUATION.

- 1. The candidate for the degree of Doctor of Dental Surgery shall be at least twenty-one years of age and of good moral character.
- 2. He shall have attended three full courses of lectures, of 32 weeks of six days each, exclusive of vacations, at some recognized and accredited dental school. The last course of which shall have been attended at this College.
- 3. He must have passed satisfactory written examinations by the Faculty on the Lecture Curriculum, and earned a satisfactory rating as to attendance and practical work.

All operating, prosthetic and technic work must be done in the College Infirmary, or the College Building, and exclusively by the applicant for the degree.

# RULES GOVERNING STANDING OF STUDENTS AND EXAMINATIONS.

The grades will be made upon the scale of 100: the passing mark will be 75; attendance upon Infirmary clinics 90 per cent; lecture courses and laboratories, 90 per cent.

## GENERAL INFORMATION.

When a student is obliged to withdraw from the College before the last four weeks of a session for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Faculty, he shall be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission to date from the reception by the Dean of a written notice of the student's withdrawal from the College.

Blank forms for application for admission will be sent by the Dean on request.

All fees must be paid in advance for each session, unless special arrangements are made with the Trustees. No student will be admitted for less than the stated fees.

All fees must be paid in full before the final examinations may be taken.

There will be no return of fees by reason of suspension or expulsion.

The matriculation fee must be paid to the Secretary before the name of a student will be recorded.

With the exception of legal holidays, the Infirmary is open the year round. There is no extra charge for the Summer Clinical Course. While not a requirement, it is advised that that the student spend as much time of the vacation period as he possibly can in the actual practice of Dentistry in the Infirmary. This course is very advantageous to the student, as it enables him to get in four solid months of practical work without any interruption for lectures.

The College is not responsible for any personal losses of the students.

All fees due the College are paid to the Secretary at his office in the Infirmary.

Laboratory benches and operating chairs are selected by students in the order of matriculation, and each student is required to occupy the same during the session.

Living expenses are about the same as through the Middle West and cheaper than on the Atlantic seaboard. Arrangements can be made through the College for securing accommodations.

The Faculty reserves the right to terminate the connection of the student with the institution at any time on the ground of what it may deem mental or moral unfitness for the profession, disorderly conduct, or failure to comply with the rules of the College.

The Faculty will expel any student convicted of practicing dentistry illegally while under its jurisdiction.

Students will not be admitted to class work and the Infirmary until after purchasing the required books and instruments.

No degrees will be conferred upon a student who is not present in person at the commencement exercises, unless excused by the Dean.

The College reserves the right to change any of the foregoing regulations at any time that it may deem expedient.

Operations in the technic departments of the school require a large number of natural teeth, and a sufficient supply is sometimes difficult to get. Students will therefore find it to their advantage to bring all the extracted teeth they can

Alumni and friends of the College are requested to send to the College boxes of extracted teeth. The College will be truly grateful for such favors and will gladly pay all express charges on such packages.

#### FOUR MEDALS ARE COMPETED FOR.

- 1. The Cave Medal is given to the student making the best piece of Prosthetic Technic work.
- 2. The Los Angeles County Dental Society Medal is given the Senior who has made the best average on theoretical work during the College course.
- 3. The Ford Medal is given to the student making the best piece of Porcelain Technic work.
- 4. The Atwater Medal is given to the student making the best piece of Operative Technic work.

# SCHEDULE OF FEES

Fees payable in two equal installments—October 15th and February 1st. No student will be admitted for less than the stated fees.

stated fees.		
	FRESHMAN YEAR.	
Matriculation	fee	\$ 5.00
Lecture ticket		
		<del></del>
		\$155.00
	JUNIOR YEAR.	
Matriculation	fee	\$ 5.00
Lecture ticket		150.00

\$155.00

#### SENIOR YEAR.

Matriculation	fee	\$ 5.00
Lecture ticket	t	150.00

\$155.00

These fees include dissecting and all laboratory fees. There are no other charges made by the College.

#### DEPOSITS, COST OF BOOKS AND INSTRUMENTS.

From beginning his work, each student will be required to procure the instruments necessary for his use.

The approximate cost of books and instruments, all of which are needed after graduation, is as follows: (This includes a dental engine, and gives the student a practical outfit, so that he can start into practice on finishing his course without much additional expense for instruments. A list of the instruments is furnished the student on his arrival.)

Freshman year	 00.00
Junior year	 35.00
Senior year	 85.00

Address all commnications to the

# COLLEGE OF DENTISTRY, U. S. C., Lewis E. Ford, D. D. S., Dean.

304 East Fifth Street.

Los Angeles, California.

# College of Law.

# CONDITIONS OF ADMISSION.

#### ADMISSION TO FRESHMAN CLASS.

Applicants for admission to the Freshman year must be at least 18 years of age; must furnish two certificates of good moral character; and must pass satisfactory examinations as hereinafter prescribed, unless otherwise qualified to be admitted.

Graduates of high schools maintaining a four years course of study or other educational institutions whose course is equivalent to such a high school course are admitted without exemination. Certificates of graduation should be presented.

Other applicants are required to pass satisfactory examinations in each of the subjects of one of the regular four year high school courses.

In special cases the Dean and Secretary have authority to admit as a special student an applicant who has not the required educational qualifications. Such admission, however, is conditional upon the applicant making up such deficiency before he enters the Senior year.

#### TO ADVANCED STANDING.

Applicants for admission to the Junior or Senior classes must present certificates of the completion by them of work equivalent to that for which they seek to be credited. Certificates will be accepted when issued by a law school belonging to the Association of American Law Schools, or other colleges of law whose requirements are as high and whose course is as extensive as that here given. Applicants for advanced standing not having such certificates must pass examination in the subjects for which they seek credit, but any student who desires to take such an examination must first secure permission to do so from the Dean and Secretary.

Such examinations are given only at the beginning of a semes-

ter. A charge of two dollars is made for each specal examination.

The school reserves the right to reject any applicant.

Any student displaying a deficiency in English and diction may at any time be required to take instruction in the class of Expression.

The school reserves the right to expell any student whenever the Board of Control deems it necessary for the welfare of the Law School, and to suspend any student, or use other methods of discipline, whenever deemed advisable by the Dean and Secretary.

#### SPECIAL EXAMINATIONS.

Any student taking the regular course who desires to omit class attendance on any subject and to take a special examination thereon, shall place in the hands of the Secretary a petition asking for the privilege and stating the student's reason therefor. The petition is referred to the Dean and Secretary. If the permission is granted, a special examination may be given. Such examinations and all examinations for advanced standing, are given at the beginning of a semester, and are passed upon by the instructor teaching the subject, and by the Secretary of the Law School. Passing grade upon all such examinations is 85 per cent.

#### COURSE OF INSTRUCTION.

The purpose of this college is to impart a sound and thorough legal education and to qualify students for admission to practice in all the courts, not only of this, but of any other state, and in the Federal Courts.

Attention is called to the fact that courses are given in Briefing and the Use of Books. In addition to the briefs required in Moot Court work the members of the Faculty assign subjects for briefs in connection with their respective classes.

The course of study, covering a period of three years, leads to the degree of LL.B.

The Post-graduate course of one year leads to the degree of LL.M.

All regular students of the law department are entitled to

four hours of instruction per week in the College of Liberal Arts without additional cost.

## The Degrees of A.B. and LL.B.

When a student in the College of Liberal Arts has received 94 semester credits (including all prescribed work) and of these has taken not less than 72 in the College of Liberal Arts of the University of Southern California, he may enter the College of Law; and upon the satisfactory completion of the professional course receive both degrees, Bachelor of Arts and Bachelor of Laws.

#### CURRICULUM.

In addition to the following, special lectures are provided during the year upon subjects which though not really required in a legal course, are yet of much value to those desiring a well rounded knowledge of the law.

#### FIRST YEAR.

#### First Semester.

Contracts, Criminal Law, Elementary Law and Blackstone, Torts, Use of Books, and Personal Property.

#### Second Semester.

Contracts, Criminal Procedure, Damages, Torts, Domestic Relations, Bailments and Carriers, Negligence, Agency, and Moot Court.

#### SECOND YEAR.

# First Semester.

Wills, Common Law Pleading, Private Corporations, Real Property I, Commercial Paper, Briefing, Equity Jurisprudence, Constitution Law and Moot Court.

#### Second Semester.

Private Corporations, Wills, Equity Jurisprudence, Real PropertyI, Commercial Paper, Partnership, Justice Court Practice, Patents, Statutory Interpretation, Constitutional Law and Moot Court.

#### THIRD YEAR.

#### First Semester.

Code Pleading, Evidence, Public Corporations, Equity Pleading, Mining Law, Water Rights, and Moot Court.

#### Second Semester.

Code Pleading, Evidence, Real Property II, Mining Law, Federal Procedure, Insurance Law, Bankruptcy, California Lien Law, Appeals, Admiralty, Legal Ethics, and Moot Court.

#### METHOD OF INSTRUCTION.

The method of instruction is a combination of the lecture, text-book and case systems, with practical experience in briefing and pleading.

#### ATTENDANCE AND SCHOLARSHIP.

Attendance at ninety per cent of the lectures and recitations is required for promotion or graduation.

Examinations are given at the end of each semester. A grade of 75 per cent on examination daily work, in each subject, is required for promotion or graduation.

Persons who are not studying for a degree may enter the College of Law at any time as special students and may pursue such studies as they desire. This provision is made especially for the aid of those seeking or holding positions of trust in banks and other business institutions.

# PUBLIC SPEAKING, VOICE BUILDING AND EXPRESSION.

A course in Public Speaking, Voice Building and Expression will be offered by Miss Beulah Wright, Dean of the College of Oratory, University of Southern California.

The course is designed to meet the needs of the students of the Department of Law. The work is of the most practical character.

It is the aim to teach a student to be simple and natural in his expression, and when occasion shall demand, powerful but at all times to preserve his individuality. A great deal of stress is laid upon the development of the voice for purity, flexibility, and control.

Most of the work done in classes is of an extemporaneous

nature, such as short talks on current public questions, argumentation and debate. Attention is also given to the study and delivery of great orations, as well as the preparation of original orations.

Students doing work in these classes may receive credit in the College of Oratory to apply upon either the Diploma Course or the Certificate Course. It is possible for a student to complete one of these courses during his three years' work in the College of Law.

#### SUMMER COURSE.

During each summer classes are conducted in a limited number of subjects. During the summer of 1909 the subjects to be taught will be Elementary Law and Blackstone, Bailments and Carriers, Common Law Pleading and one of the Junior subjects which cover less than two periods per week for the year in the regular course.

#### COURTS.

The Supreme Court of the State holds two sessions each year in Los Angeles, and the students have opportunity to hear carefully prepared arguments by the ablest lawyers of the country.

The United States Circuit and District Courts are held here and opportunity for study of the Federal practice and procedure is thus offered, on both law and equity sides.

The Superior Court of Los Angeles County, consisting of nine departments, is in session the entire year.

Three city Police Courts and four Township Justice's Courts, in which students in the Middle and Senior years can get some actual practice before admission to the bar, are in session daily during the entire year.

#### LIBRARY.

Students are allowed the use of the Los Angeles County Law Library, consisting of twenty thousand (20,000) volumes, upon the same terms as members of the bar.

The College of Law has a good working library of its own, consisting of State Reports, the Reporter System, Text and other case books, numbering in all over 1500 volumes.

#### MOOT COURTS.

Students of the Second and Third years are assigned not less

than two cases during each semester, which they are required to conduct through the Superior Court, and one of which must be taken up on appeal through the Appellate or Supreme Courts. Controversies are arranged and assigned upon statements of facts for trial.

All of the steps incident to a contested trial are taken, including preparation of pleadings, argument of motions and demurrers, preparation of briefs, taking of depositions, impanelling of jury, challanges, introduction of evidence, argument of case, etc.

Students of the First and Second years act as witnesses client and jurors. These trials are presided over by a member of the Faculty and are conducted as nearly as possible in the same manner as trials in actual courts. Each student in the First and Second years must write at least three briefs which are examined and graded by the Judges of the Moot Court.

The Moot Courts consist of the Justice's Court, Superior Court, the Court of Appeal and the Supreme Court. The procedure conforms to that of the State of California with pleadings under the Code. Each firm is composed of a member of the Senior class and a member of the Junior class. Sessions of the courts are held weekly. A student acts as clerk of the Moot Court, and is at the Law School throughout the day.

Such a course of practical training is of inestimable value to one who intends to locate in California, or in any of the Western code states.

#### NIGHT SCHOOL.

Beginning with the year 1908 to 1909 a section of the Freshman class is conducted as an Evening School. During the year 1909 to 1910 this arrangement will be extended to Junior subjects. Students attending Night School take as many or as few courses as they desire. By taking all of the courses offered they may complete the work and secure their degree in four years of Night School work, or they may take two years of Night School work, attend two sessions of the Summer School and complete the course in three years by taking the third year with the regular day class. The subjects taught in the Freshman class are Torts, Contracts, Elementary Law and Black-

stone, Criminal Law and Procedure, Agency, and Bailments and Carriers.

#### POST-GRADUATE COURSE.

During the year 1908-1909 a Post-Graduate course of one year is being given. The degree of Master of Laws (LL.M.) is conferred upon those who have previously received the degree of Bachelor of Laws (LL.B.) from any Law School which is a member of the Association of American Law Schools or from any other approved Law School maintaining a three-year undergraduate course, on completion of an approved course of graduate study equivalent to ten yearly periods.

The following are the subjects of which the Post-Graduate course consists:

International Law, Spanish and Mexican Land and Mining Law, Contracts in Restraint of Trade, Interstate Commerce, Codification, Extraordinary Legal Remedies, Public Officers, Conflict of Laws, Logic, Jurisprudence, Juristic Encyclopedia, Historical Review of Moden English Theories, American Common Law.

The following are books of reference to be used in connection with the subjects of Elements of Jurisprudence and American Common Law:

- 1. Institutions of Justinian (Translation and Original).
- 2. Mackelday's "Roman Law."
- Ortolan's "History of the Roman Law" (Translation, Butterworth & Co., 7 Fleet St., London.
- "Outlines of the Science of Jurisprudence" (Translated and Edited from the Juristic Encyclopedias of Puchta, Friedlander, Falch & Ahrens, T. & T. Clark, Edinburgh).
- Theory of the State (Bluntschli, Clarendon Press, Oxford).
- 6. Hobbes' "Leviathan."
- 7. Herbert Spencer's "Social Statics," and "Justice."
- Kant's 'Philosophy of the Law' (Translated. T.T. Clark, Edinburgh).
- 9. Austin's "Jurisprudence."
- 10. Holland's "Jurisprudence."
- 11. Markby's "Elements of Law."

- 12. Aristotle's "Politics," "Ethics," and "Rhetoric" (Bohn's Library).
- 13. Whateley's "Logic."
- 14. Jevon's "Lessons in Logic."
- 15. Sigwart's "Logic."
- Bacon's "Advancement of Learning," "Novum Organon" and "Essays."
- 17. "Elements of Right and of the Law" (Smith, Callahan & Co., Chicago).
- 18. "Theory of the State" (Smith, "American Philosophical Society" Philadelphia).
- 19. "Logic or the Analytic of Explicit Reasoning" (Smith, Putnam Sons, N. Y.).
- 20. "Logic and Its Uses; a Lawyer's View" (Smith, "American Law Review").

#### DEBATING CLUBS.

The Freshman Debating Club is under the supervision of the College and attendance at 70 per cent of its meetings is compulsory on all regular students of the Freshman class.

The Dean of the College of Oratory directs the work,

The Lyceum is a club having a restricted membership, and is composed of members of the Junior and Senior classes.

Several debates between the College of Law and other institutions of learning are arranged yearly.

# ORATORICAL ASSOCIATION.

The Law School Oratorical Association is organized for the purpose of stimulating interest in oratory.

Occidental College, Pomona College, Whittier College and the University of Southern California compose an Oratorical Association. Students of the Law Department are eligible as representatives of the University in the contests.

A cash prize of \$75 is awarded the winner of the local tryout; \$15 is awarded the contestant taking second place, and \$10 is given the one taking third place.

The same colleges compose a Prohibition Oratorical Association. A cash prize is awarded the winner of this contest. Raphael H. Blakesley, of the College of Law, won both the home and inter-collegiate oratorical contests of this Association for the year 1907-08.

#### ALUMNI MEDAL.

This prize is an unusually elaborate gold medal, which is presented each year at commencement to that member of the graduating class who shall have maintained the highest general average in scholarship throughout the whole College course. This medal was awarded in 1907 to Kemper B. Campbell.

#### FRATERNITIES.

The legal fraternity of the Phi Delta Phi has a chapter here, known as Beatty Chapter.

Students intending to organize a fraternity must first obtain the consent of the Dean and Secretary.

#### ATHLETICS.

Regular students of the College of Law enrolled in the Junior and Senior classes take part in all intercollegiate athletic events in which the University participates, and the members of the Freshman class are eligible to all except Conference Meets.

#### ADMISSION TO THE BAR.

Graduates of the University of Southern California, College of Law, are admitted to the bar upon motion and without examination.

#### EASTERN STUDENTS.

An increase in the number of Eastern students attending the University of Southern California is noted each year and expected. An opportunity is afforded to spend a few years in Southern California and at the same time fit oneself for the practice of law. Those intending to practice in common-law states should notice that an entire semester is devoted to the study of common-law pleading. It is the aim to fit the graduates of this College to practice law in any state.

#### FEES AND EXPENSES.

An entrance fee of \$10.00 is required upon registering. Tuition fees are \$75.00 per year, if paid in advance at the beginning of the college year, or \$42.50 per semester. Failure to pay fees when due debars from the class room. Students who are compelled to withdraw from school on account of sickness will have a part of their tuition refunded upon application.

#### FEES FOR CLASSES IN EXPRESSION.

Fees for tuition in Public Speaking, Voice Building and Expression are \$10 per semester, or \$18.50 per year in class. These classes occupy two periods of 45 minutes each per week. The tuition charged for private lessons is as follows:

One	lesson	peer	week	(30	minutes)		\$25.00
One	lesson	per	week	(45	minutes)		37.50
Ten	lessons	per	week	(30	minutes)		15.00
Ten	lessons	per	week	(45	minutes)		22.50
Sing	le lesso	ns (	30 mi	nutes	s)		2.00
Sing	le lesso	ns (	45 mi	nutes	s)		3.00

#### ROOMS AND BOARD.

Students on arriving at Los Angeles can obtain information in regard to rooms and board by calling at the office of the Secretary of the Law College.

Although the School cannot agree to secure students positions in offices, yet it will assist those who desire to make such arrangements, and it may be here stated that ordinarily no serious difficulty is experienced in finding such opportunities.

Those desiring further information relative to the College of Law may obtain it by writing for its special Announcement.

Address all communications:

University of Southern California College of Law, Exchange Building, Los Angeles, Cal.

# The College of Music.

The musical department of the University was founded twenty-two years ago. By a faithful adherence to high standards its faculty have brought it to a well recognized position in higher musical education. Its diplomas have all the prestige which comes from its long establishment and the name of the University. Its graduates and former students are taking prominent places in the musical world all over the Southwest, both as teachers and performers.

Extended courses are offered in a wide range of musical subjects. The end sought in every branch pursued by the student is such thoroughness as will give him a genuine accomplishment and true culture or insure him the mastery expected of a professional.

Its unusually strong faculty, including some of the most widely known teachers in the Southwest, and its thorough courses of instruction, beside its location in connection with the University, make it an ideal school. Its aim is to make well-grounded musicians and not mere performers.

#### ADVANTAGE OF COLLEGE STUDY.

The general spirit of earnest study characteristic of an institution of higher learning such as the University has been found to react very beneficially on the student of music, who, too often, is inclined to superficiality. Breadth of character and liberal ideas are more surely attained in the atmosphere of general education than in that of specialized study.

Among the many points of superiority of college study in music may be mentioned the regular attendance at lessons required; the musical atmosphere created by the recitals, lectures and class work; the incentive to greater effort by observing the proficiency of others; the sharpening of the critical faculties and the development of taste by hearing other students perform; the opportunity given for obtaining in class work at very slight expense, the very best of training in the theoretical

studies such as harmony, theory and history of music—studies which are essential to the well-grounded musician and which the private teacher cannot touch upon in the lesson hour.

#### EQUIPMENT.

The College of Music occupies the south wing of the main building. The interior is thoroughly modern and artistic in finish and furnishings. It contains a commodious and elegant reception hall, furnished as a reception and reading room, also cloak room and lavatories, lecture hall and recital hall, and a large number of exceptionally large and attractive studios. Nothing superior to it in the way of a music school home can be found in this section.

The school is equipped with a full complement of teaching and practice pianos. The pipe organ in the college chapel is available for practice only to our students. It is blown by electric motor and the charge for rental is no more than blower's fees would be in an organ blown by hand.

#### RECITALS.

A feature of the greatest value to the students is the weekly pupils' recitals, at which the pupils are expected to play or sing before the whole school, as their teachers may direct. Public performance is an art in itself, and can only be mastered by many public appearances. Pupils who acquit themselves creditably at the recitals before the music students only, are allowed to appear at the public recitals of the school. A practical familiarity is thus gained with the music of the other branches represented outside of the student's specialty. Recitals are also given by the faculty from time to time, who are also frequently heard in the recitals given by the advanced pupils. Music students have free admission to all public exercises of the school.

#### ARTISTS' RECITALS.

All educators agree that nothing is so helpful to a student as hearing the best music when rendered by superior artists. The opportunities offered in Los Angeles for hearing the best in art are superior to those in many Eastern cities of the same size. Many of the world's greatest artists visit the city each season.

Pupils are urged to hear as many of these as possible and special rates are offered in most cases.

#### THE COURSE OF STUDY.

The educational system of the school is divided into two general departments: the Preparatory and the Normal or Collegiate.

All beginners are received in the preparatory department, whether they plan for the regular advanced courses or merely desire the best of training during the time they devote to the study. Correct elementary teaching is the most important and, in some respects, the most difficult of all. It is the aim of the school to advance pupils as rapidly as is consistent with thoroughness and the formation of correct habits.

The Normal or Collegiate department is designed for students preparing for the profession as teachers and artists and for amateurs desirious of obtaining a thorough training in the art and science of music.

# FREQUENCY OF LESSONS.

Too much emphasis cannot be laid upon the importance of frequent lessons. The fact that a pupil's practice time is limited to two or even one hour a day does not mean that one lesson a week is sufficient to insure correct progress. A pupil need not practice any more for two lessons than for one a week.

At every piano lesson, for example, must be considered matters of technic, which includes position, conditions and action of fingers, hands, arms and body; correct reading of notes; time; fingering; musical signs; pedal; expression; musical form; phrasing; and other things which the special needs of each pupil may suggest. To carefully criticize the pupil's past work and lay out the future in all these details so that past errors shall not be repeated or new ones be made, is the part of the teacher; in other words, to guide and direct the pupil's practice. To do this adequately in one lesson a week is well nigh impossible for the teacher, and to remember the teacher's criticism and suggestions for so long a time, still more impossible for the pupil. No matter how careful pupils mean to be, errors will creep into their work, faulty practice will be done before the week is over, and work will have to be undone and done again. This means

delayed progress and, from a financial point of view, increased expense. This is especially true with children just commencing study, who should, if possible, see the teacher three times a week.

Our experience, in common with that of all conscientious teachers, leads us to believe that taking but one lesson each week is the greatest mistake a pupil can make.

#### DIPLOMAS.

The diploma of the University is given at the completion of the Normal or Collegiate course.

The requirements for graduation in any department are the completion of the prescribed course in that department, at least one year's work in which must be done in this school; the completion of the Normal course of four semesters in harmony and ear training, one semester in musical theory and two semesters in musical history, and the public performance during the senior year of an entire program under the direction of the department teacher.

Organ students will also be required to take the semester of "key-board harmony." Vocal students are required to take one year of piano work.

#### TEACHERS' CERTIFICATES.

Teachers' Certificates will be given to those who have completed the work of the Normal course, but who for any reason are unable to give the public recital required for graduation.

#### COLLEGE CREDITS.

Credits will be given in the College of Liberal Arts for musical work as follows: Two semester hours per term will be credited to students making passing grade in any one of the theoretical studies or advanced vocal or instrumental work, the total credits in any case not to exceed fifteen.

#### BUSINESS REGULATIONS.

Students entering after the opening of the term will register for the remaining portion, and will be charged pro rata. The work of the term begins on the date advertised, and students who enter late will find themselves behind their classes. Students taking less than one-half term in class work will be charged for the half term; those taking more than a half term will be charged for the full term.

All students are required to attend the regular recitals of the school and to take part in them whenever so assigned.

No deduction will be made for occasional absence from lessons or for lessons discontinued without notice. Lessons missed will be made up to pupils, if notice of the intended absence is given three days in advance.

Lessons falling on national holidays are not lost to students. Sheet music will be furnished students at teachers' rates, if paid for on delivery.

A discount of fifteen per cent is allowed to the children of Methodist ministers. This discount applies to vocal and instrumental work only.

Settle all accounts at the office only, making checks payable to THE DEAN.

TERMS: Payment in ADVANCE for each month's tuition will be expected by the 7TH OF THE MONTH or on enrollment.

#### TERMS OF TUITION.

# By the Semester of nineteen weeks. PIANO OR ORGAN.

# Mr. Skeele. Three-quarter hour lessons, one per week......\$47.50

Half hour lessons, one per week	Three-quarter hour lessons, two per week	€5.00
PIANO.  Miss Trowbridge or Mrs. Brimhall.  Three-quarter hour lessons, one per week. \$28.56  Three-quarter hour lessons, two per week. 57.06  Half hour lessons, one per week. 23.76	Half hour lessons, one per week	38.00
Miss Trowbridge or Mrs. Brimhall.  Three-quarter hour lessons, one per week. \$28.50  Three-quarter hour lessons, two per week. 57.00  Half hour lessons, one per week. 23.76	Half hour lessons, two per week	76.00
Miss Trowbridge or Mrs. Brimhall.  Three-quarter hour lessons, one per week. \$28.50  Three-quarter hour lessons, two per week. 57.00  Half hour lessons, one per week. 23.76	PIANO	
Three-quarter hour lessons, one per week		
Three-quarter hour lessons, two per week	Miss Trowbridge or Mrs. Brimhall.	
Half hour lessons, one per week	Three-quarter hour lessons, one per week\$2	28.50
, <del>*</del>	Three-quarter hour lessons, two per week	57.00
Half hour lessons, two per week 47.50	Half hour lessons, one per week 2	23.75
	Half hour lessons, two per week	7.50

#### Miss Arnett.

Three-quarter	hour le	ssons, c	one	per	week\$23.75	
Three-quarter	hour les	ssons, t	wo	per	week 47.50	

Half hour lessons, one per week
Half hour lessons, two per week
, 1
Miss Patton (Dunning System).
Hour lessons in classes of four to six\$28.50
Half hour private lessons, one per week
* / *
VOCAL.
Mr. Miller.
Half hour lessons, one per week\$47.50
Half hour lessons, two per week
,
Mrs. Robbins.
Forty minute lessons, one per week\$47.50
Forty minute lessons, two per week
Half hour lessons, one per week
Half hour lessons, two per week
, ,
THEORY, HARMONY OR HISTORY.
Mr. Pemberton,
Class lessons, two per week
Private lessons, one per week
VIOLIN.
Mr. Pemberton.
Hour lessons, one per week\$38.00
Hour lessons, two per week
Mr. Seiling.
Three-quarter hour lessons, one per week\$47.50
Three-quarter hour lessons, two per week 95.00
Thirty-five minute lessons, one per week 38.00
Thirty-five minute lessons, two per week
Rental of Pipe Organ, one hour each day, including blowing,
per term\$17.10
Rental of Pipe Organ, two hours each day, per term 34.20
Rental of Piano, one hour each day, per term 4.00

#### CALENDAR.

The school year is divided into two semesters, or terms, of nineteen weeks each.

Monday, September 13, First semester begins.

Monday, December 20, to Monday, December 27, Christmas vacation.

Saturday, January 29, First semester closes.

Monday, February 2, Second semester begins.

Saturday, June 11, Second semester closes.

Friday, June 10, Annual commencement concert.

Thursday, June 16, Commencement exercises of the University and the conferring of diplomas.

For further information as to courses, etc., address W. F. SKEELE, W. Thirty-fifth Street and Wesley Avenue; phone 22121; Residence, 215 Thorne Street; phone 39368.

# College of Oratory.

The system used in the College of Oratory is based upon the Cumnock Method, founded by Robert McLean Cumnock, L.H.D., Director of School of Oratory, Northwestern University, Evanston, Illinois.

The aims of the College are:

To develop the inner man.

To prepare the body to express the inner man.

The method is neither imitative nor mechanical, but is founded upon psychological principles.

The pupil acquires the power to interpret for himself and to express emotions through his own individuality. The result is a naturalness and simplicity of manner together with personal power.

A great deal of attention is paid to the Department of Public Speaking. Ministers, theological students, or any who may have occasion to address audiences, will find this work of great value.

#### COURSES OF STUDY.

## (Class Work.)

- Course 1. Fundamental principles of expression, English phonation, enunciation, interpretation of selections from Cumnock's Choice Readings. Two hours, first semester.
- Course 2. Voice building, breathing, tone placing, bodily expression, interpretation of selections from Cumnock's Choice Readings. Two hours, second semester.
- Course 3. Interpretation from modern writers: Kipling, Barrie, Van Dyke, Riley, Kate Douglas Wiggin, Maclaren, Dunbar and others. Two hours, either semester.
- Course 4. A study of Lyric Poems: Wordsworth, Browning, Tennyson, Burns, Lanier, Arnold, Dickens, and others. Two hours, either semester.
- Course 5. Voice, Relaxation, Concentration, Breathing, Tone Placing, Rhythm, Phrasing. Two hours, one semester.

Course 6. Debate and Extemporaneous speaking. Two hours, either semester.

Course 7. Oratory. A study of master-pieces of Oratory. Text Sears' History of Oratory. Two hours, either semester.

Course 8. Shakespeare: Julius Caesar, or King Richard II; Twelfth Night, or Two Gentlemen of Verona; Midsummer's Night Dream. Two hours, either semester.

Course 9. Artistic Anatomy. A summary of Anatomy intended for the study of forms, attitude and movements. Text: Toyal's Artistic Anatomy. Two hours, first semester.

Course 10. Repertoire, abridgment of books and classics for public presentation, arrangement of program, impersonation. Advanced students only. Two hours, second semester.

Course 11. Bible and Hymn Reading; Vocal Expression of the Bible and Hymns, Voice Building. Text: Curry's Vocal Interpretation of the Bible. Two hours, either semester.

Course 12. Assembly. All private pupils meet with the Dean to pursue a course in the Art of Expression. Two hours, both semesters,

Course 13. Dramatic Club. Interpretation and presentation of the drama. A study of dramatic law. Two hours, both semesters.

Course 14. Physical Expression. Two years of training for physical development and the acquiring of grace and harmony in all bodily movements. Two hours, both semesters.

#### DIPLOMA COURSE.

The work required in this course consists of: Three years of private work, two lessons per week; the fourteen courses; one year advanced Physical Training; College work sufficient to enroll a student as a Junior in the College of Liberal Arts.

## CERTIFICATE OF EXPRESSION.

The work required in this course consists of: Two years of private work, two lessons per week. Courses 1, 2, 3, 5, 9, 10, 12, 13, 14, and two of the remaining five courses to be elected; one year of Gymnasium work.

Students wishing to complete this course of study must have at least one year of History, and two years of English.

#### CERTIFICATE OF PHYSICAL TRAINING.

The work required in this course consists of: Two years of private work in physical training, two lessons per week. Courses 1, 2, 3, 5, 9, 13, 14 and three of the remaining seven courses to be elected; two years of general work in the Gymnasium.

Students wishing to complete this course must have at least one year of Physiology or Hygiene.

#### RECITALS.

Pupil's recitals are given every two weeks, on Wednesday at 3:50 p. m., in the Athena Literary Hall. The participation in these recitals by students is required that the student may have practice and gain confidence in appearing before audiences. All students enrolled in the school are expected to be present at each recital. Admission to friends is by card.

Faculty recitals are given each semester by the instructors in the school, or by artists from the outside.

#### PHYSICAL EXPRESSION.

"Is not that the best education which gives to the mind and to the body all the force, all the beauty and all the perfection of which they are capable?" —Plato.

Special classes in Physical Culture are conducted for the Oratory students. The laws which underlie Physical Expression are here studied and such exercises are given as will best develop the pupil toward health, expressiveness of movement and grace. It is the aim of this work to bring the body under perfect control of the will, and to teach the principles of gesture in such a manner as to give spontaneity and freedom from affectation.

#### CHILDREN'S DEPARTMENT.

This course is planned for children under twelve years of age. Classes are organized in expression, where the children are trained in common reading and in the delivery of recitation.

Classes are also formed in Physical Culture, where children are taught correct breathing, standing, walking, sitting, and ease and lightness of movement. Exercises are given to cor-

rect individual faults of body, such as round shoulders and hollow chests.

#### TUITION.

# Fees are payable to the Dean in advance. Instruction per semester (18 weeks).

Full course, including two private lessons per week, four or more classes in Expression, one study in the Academy or Colleg of Liberal Arts.

ice of Liboral Little
Paid in advance for the year
Full course, per semester 70.00
Two private lessons per week (30 minutes) 50.00
One private lesson per week (30 minutes)
A course of ten lessons (30 minutes)
One private lesson per week (45 minutes)
A course of ten lessons (45 minutes) 22.50
Single lessons (45 minutes)
Single lessons (30 minutes) 1.50 to 2.00
Class, two periods per week (55 minutes) 10.00
Dramatic Club, two periods per week (55 minutes) 10.00
Coaching plays (60 minutes) 1.50

## PHYSICAL EDUCATION.

Full certificate	course\$60.00	
One private less	on per week (30 minutes) 25.00	

#### CHILDREN'S DEPARTMENT.

Two private lessons per week, Expression (30 minutes)\$3	35.00
One private lesson per week, Expression (30 minutes) 2	20.00
Class Expression, course of 15 lessons	8.00
Class Physical Culture, course of 15 lessons	5.00

A discount of 10 per cent on all private work will be given to ministers.

The diploma fee is \$10.00.

The certificate fee is \$5.00.

A student in the College of Liberal Arts may elect a maximum of fifteen hours in the College of Oratory.

University of Southern California College of Oratory,
Thirty-fifth Street and Wesley Avenue.

Miss Beulah Wright, Dean.

# College of Fine Arts.

#### CALENDAR 1909-1910.

September 14, 1909-Enrollment of students.

September 16, 1909-Commencement of class work.

Christmas vacation begins December 24, Friday.

Class work resumes January 3, 1910, Monday.

Examination in Osteology and special branches last week in January.

Second semester begins February 1.

Examinations in Anatomy, Art History, Mythology, and Technique begin June 1.

June 11-Commencement exercises.

All legal holidays of the State of California and the city of Los Angeles will be observed.

## THE COLLEGE.

The plan of art teaching adopted by the College of Fine Arts eight years ago, although new in the West, has proved splendidly successful. This plan bears the same relation to the ordinary art school as a college of liberal arts bears to the ordinary grade school. A broad and liberal culture in art is its purpose as well as a high grace of attainment in special lines of art practice and teaching. This plan is made possible by the more efficient teaching of art in grade and high schools in recent years.

Owing to its superb location and perfect adaptation to its purpose this school offers more advantages in the way of convenience, comfort, salubrity, outlook and abundance of painting material than any other school in the West.

#### COURSES OF STUDY.

The full College course includes clay modelling, mechanical drawing, projection, perspective, freehand drawing, painting in water color and oil, art history, mythology, sacred history, anatomy and the art crafts. The course covers three full years'

work and entitles the student to a diploma on passing the required examination.

#### ARCHITECTURE.

This course includes practical geometry, perspective, projection, building construction, history of architecture and mathematics.

#### SCULPTURE.

The sculpture course includes drawing, clay modeling, casting, anatomy and art history.

#### PAINTING.

The painting course includes drawing, technique in water and oil, anatomy, chemistry of pigments, color harmony and composition.

#### ANATOMY.

Artistic anatomy includes study of the skeleton, superficial muscles and movements from life.

#### ILLUSTRATING.

This course embraces the technique of charcoal, pencil, pen and brush work, anatomy, the principles of design and composition.

# THE ART CRAFTS.

There are classes in design, pottery, brass work, ornamental forged iron work, book binding, leather tooling and jewelry.

#### DESIGNING.

The course in design covers mechanical drawing, composition, the history and principles of ornament, color harmony, the constructive requirements of fabrics, glass work, fictile products, metal work, etc.

#### POTTERY.

This course includes clay modeling, the potter's wheel, moulding, glazing, firing, underglaze painting, harmony and design.

Credits are allowed for work accomplished elsewhere.

Certificates are granted on the satisfactory completion of special courses.

A diploma is granted on the completion of the three-year course with a satisfactory examination.

The degree of Bachelor of Fine Arts will be granted on the completion of four full school years of study and the execution of a meritorious original work of art to the satisfaction of the examiners.

Students in special branches may enter the school at any time during the school year.

#### CLASSES.

Classes begin every week day at 9 a. m. and 1 p. m. from the life model, landscape, cast, still life and architecture.

There is a special class in modeling from life on Thursday mornings.

There is a special class in landscape on Friday mornings.

Lectures on art history, mythology and anatomy on Mondays, Tuesdays and Wednesdays.

Competitions in design on the first Wednesday in each month. During the summer months a landscape class and a teachers' class are maintained from June 15th to September 15th.

#### FEES.

Full collegiate year\$85.00
Per semester (19 weeks) 45.00
Six lessons per week, per month 12.00
Five lessons per week, per month
Three lessons per week, per month 6.50
One lesson per week, per month
Graduation fee 5.00

No charge is made for models, lockers, boards, easels, clay, etc.

Materials are furnished to students at wholesale rates.

The lectures are free to all enrolled students.

All fees are payable in advance.

# The College of Pharmacy.

#### CALENDAR, 1909-1910.

1909.

October 18....Monday—Regular term begins at the College Building.

November 25...Thursday; November 26, Friday—Thanksgiving vacation.

December 20...Monday—Christmas holidays begin. 1910.

January 3..... Monday-Lectures resumed.

May 29.....Term Closes.

June 17 ..... Thursday -- Commencement.

On all legal holidays of the State of California the calendar will be suspended.

#### FACULTY.

George Finley Bovard, A. M., D. D., President of the University.

Walter T. Taylor, Ph. G.,

Dean and Professor of Pharmacy.

Charles W. Hill, Ph. G.,

Professor of Materia Medica and Pharmacognosy.

Laird J. Stabler, M. S., Ph. C.,

Professor of Chemistry and Toxicology.

Albert B. Ulrey, A. M.,

Professor of Physiology and Botany.

Arthur R. Maas, Ph. C.,

Associate Professor of Pharmacy.

Ethel W. Graves, A. M.,

Assistant Professor of Inorganic Chemistry.

Andrew C. Life, A. M.,

Assistant Professor of Microscopy.

#### Heward A. Peairs, A. B.,

Lecturer on Pharmacal Jurisprudence.

#### Erwin H. Miller, B. S.,

Lecturer on Food and Drug Adulteration.

L. Schiff.

#### Lecturer on Commercial Pharmacy.

Dean B. Cromwell.

Director of Physical Education.

#### ADVISORY BOARD.

Walter Lindley, M.D., LL. D. Granville McGowan, M.D.

L. N. Brunswig L. D. Sale F. M. Boswell

Frank Moore F. F. Bothwell F. W. Braun

#### COLLEGE OF PHARMACY.

The demands of pharmaceutical progress today require representatives who possess technical knowledge. To supply this demand, the College of Pharmacy is affiliated with the University of Southern California; its aim and purpose being to create a means for higher pharmaceutical education, and supply a broader foundation for the students' future professional career, by providing systematic instruction and special training in those subjects requisite for the successful practice of pharmacy.

#### COURSE OF INSTRUCTION.

The system of instruction will include lectures, demonstrations, recitations, written and oral examinations, as well as individual instruction in operative and dispensing pharmacy, organic, inorganic and analytical chemistry, botany, materia medica, pharmacognosy, toxicology, hygiene, physiology, sanitary science, food and drug analysis and microscopy, with special lectures upon business topics especially suited to the retail pharmacist.

The session will open October 18, 1909, and will continue until May 29, 1910, and the schedule will be conducted during the forenoon so as to allow students the privilege of retaining their positions as clerks in the stores of Los Angeles and neighboring towns while attending college. The hours of instruction are from 8 a. m. to 12 m.

#### REQUIREMENTS FOR ADMISSION.

Applicants for admission must be at least seventeen years of age, and must furnish evidence of their ability to prosecute the work of the course successfully. The preliminary education should be equivalent to that required for entrance to high school.

#### ADVANCED STANDING.

Students who have pursued courses of study in other colleges of pharmacy will be given credit for such portions of their work as are equivalent to the work required by this College.

### COURSES OF INSTRUCTION. PHARMACY.

Professor W. T. Taylor.
Professor Arthur R. Maas.

Junior Year-Eight hours per week.

The lectures of the Junior year will treat of the history of Pharmacopoeia. Weights and measures, percentage solution and the arithmetic of dispensing and manufacturing pharmacy, owing to their importance, will be considered at length. Specific gravity and specific volume will be taught by demnostrations, using the various apparatus for the purpose, accompanied by a thorough explanation of each. Heat will next be considered, then the operations wherein heat is used; evaporation, distillation, sublimation, desiccation, exsiccation, etc. This will be followed by a discussion of the preservation of crude drugs and their preparation for manufacturing purposes; then the operations of decantation, filtration, clarification, maceration, infusion, decoction and percolation.

Alternating with the subject of operative pharmacy, the galenical preparations will be critically studied; while they will be discussed from the standpoint of their several classifications, such individual preparations as merit it will be given special consideration, the object being to familiarize the student with the reasons for each step taken in the manufacture of the different preparations.

Senior Year-Eight hours per week.

The lectures of the Senior year will embrace the study of the inorganic and organic acids and the salts of the different metal-

lic bases; the commercial methods of preparation will be touched upon, and a special effort will be made to teach the student how to prepare them extemporaneously when necessity arises therefor. In addition to the official compounds, those unofficial ones which through frequency of use merit it, will likewise be treated of.

This will be followed by a study of alkaloids and the neutral principles of vegetable drugs.

Extemporaneous pharmacy will then be taken up and will include a thorough discussion of dispensing. Facsimiles of physicians' prescriptions will, by means of the stereopticon, be thrown upon a screen, and the class drilled in reading those that are difficult legibly. Chemical and pharmaceutical incompatibilities will be taught, and best methods discussed for overcoming same.

#### PHARMACAL JURISPRUDENCE, Mr. Howard A. Peairs.

The course consists of lectures to the Senior Class in which the rights and responsibilities of pharmacists and the laws affecting the same are taken up and fully discussed.

#### MATERIA MEDICA. Prof. C. W. Hill.

This course consists of one lecture or recitation and one laboratory exercise of two hours per week, and will present the subject in as broad, yet concise, form as possible. It will be confined to that instruction which will be of greatest benefit to the student when the course is completed, giving larger consideration to those drugs of animal or vegetable origin which in commerce are most frequently met with.

The lessons and lectures in Materia Medica will be based upon the pharmacopoeia; at the same time due observation will be given to those remedies which are unofficial. The order in which these agents will be taken up will be based upon a commercial classification, studying first the roots, which will be sub-classified according to analogous ???????

#### PHARMACOGNOSY.

Instruction will be given two hours per week in this branch of studies, by lectures, as well as by recitations, quizzes, home

study and examination of drugs—all these will be given with the view of enabling the student the more readily and thoroughly to identify the drug and give judgment as to quality.

Each drug will be considered as to its nature, origin, commercial and botanical relation, and microscopical structure, active principles, therapeutic action, doses.

Adulterations, admixtures and substitutions will be thoroughly discussed.

#### CHEMISTRY.

#### Professor Laird J. Stabler. Ethel W. Graves.

Junior Year-Eight hours per week,

The course consists of two lectures or recitations and two laboratory exercises of three hours per week. The essential points of chemistry needed by a pharmacist are covered very thoroughly. A study is made of the laws governing chemical action and the properties of the common elements and their compounds.

The lectures are practically demonstrated by experiments which assist the student in gaining a clear knowledge of the subject.

Junior Laboratory Course. The student is provided with a complete equipment of apparatus for qualitative analysis. Particular attention will be given to the separation and identification of the compounds of the U.S. Pharmacopoeia, together with tests of purity.

Senior Year-Eight hours per week.

The work of this year is devoted to Organic Chemistry, Toxicology and Urine Analysis. The course will consist of lectures and practical laboratory work throughout the year on these subjects.

Organic Chemistry. The course will cover the whole field of this branch which is so important to the pharmacist. Special attention will be paid to those compounds which are of pharmaceutical value, including synthetical and medicinal preparations.

Toxicology and Urine Analysis. The work will include lectures and practical laboratory work in the identification of the common poisons and a careful study of the abnormal con-

stituents found in urine. Each student will make a complete analysis of a large number of samples from the hospital clinics.

Quantitative Chemistry. This course will cover the usual gravimetric and volumetric determinations. It will be a practical course in estimating the strength of pharmaceutical preparations.

Food and Drug Analysis. The latter part of the Senior Year will be given over to Food and Drug analysis. The course will consist of lectures and laboratory work. Each student will be required to make a number of assays of U. S. P. preparations and also to examine food products for preservatives and adulterants. The official methods of analysis of the Department of Agriculture will be used.

#### BOTANY AND MICROSCOPY.

#### Professor Ulrey. Assistant Professor Life.

The course in Botany comprises a thorough study of flowering plants during the Junior year and a survey of cryptogamic plant life in the Senior year.

Each phase of the subject is presented with reference to the special needs of the pharmacist. The complete course is sufficiently comprehensive to afford an acquaintance with all of the great departments of botany.

The course includes a study of the gross structure, functions and classifications of plants; the microscopic structure of the tissues and lower forms of plant life.

The laboratory for microscopic work is equipped with a good grade of compound microscopes, several hundred prepared slides and a complete electrical projection apparatus for demonstration of microscopic objects on the screen.

#### PHYSIOLOGY, HYGIENE AND SANITARY SCIENCE.

(See College of Pharmacy catalogue.)

#### EMPLOYMENT.

The course of lectures has been so arranged as to permit those who desire it to devote a portion of their time to employment.

The Secretary will keep a register of students seeking such employment, and will give every assistance possible in procuring it for them.

#### FEES AND EXPENSES.

Tuition Fees. The tuition fee for each year is eighty-five dollars. The payment of this fee entitles the purchaser to one continuous course of lectures and laboratory instruction in all departments. The tuition fee covers all drugs, chemicals and other materials (with the exception of a few expensive drugs and chemicals) consumed by the student in the laboratories.

Special students may, by permission of the faculty, take any part of the course at a proportionate tuition fee, providing that such fee shall not be less than twenty-five dollars.

Laboratory Deposit. Chemical and pharmaceutical apparatus and supplies, together with microscopes and other implements required in the work of the course are furnished by the College without expense to the student, but breakage or damage to apparatus must be paid for, and for this reason each Junior or Senior student is required to deposit ten dollars with the Secretary. This deposit, or such portion of it as is not required for the specified purpose, will be refunded at the close of the term.

A diploma fee of ten dollars will be required.

Payment of Fees. All fees must be paid at the beginning of the term. Where this is impossible, the Laboratory Deposit and at least one-half of the tuition must be paid upon entering the class. The balance of tuition to be secured by note to be paid sixty days from date of matriculation.

All fees must be paid before the final examinations are taken. Special Students. Students may matriculate for any separate course. Medical students will find a systematic instruction of pharmacy an excellent foundation for a medical course. The instruction offered in this school of pharmacy will give a working knowledge of chemistry as it is applied in the engineering and metallurgical industries.

#### CORRESPONDENCE.

For further information write for the College of Pharmacy catalogue.

Letters of inquiry will receive careful and prompt attention. Address all communications to College of Pharmacy, 36th St. and Wesley Ave., Los Angeles, Cal.

# The College of Theology.

The Maclay College of Theology was founded about twenty years ago by State Senator Chas. Maclay in a generous endowment of lands in the San Fernando valley. Rev. R. W. C. Farnworth, presiding elder of the Los Angeles district, was its first dean, the faculty being completed by the appointment of Reverends Fletcher B. Cherington and James Blackledge. On the death of Dean Farnsworth, the Rev. R. S. Maclay, D.D., the veteran missionary from the Orient, was called to the headship of the college which bears his name. When advancing years and failing strength caused the resignation of Dr. Maclay, the Rev. Geo. Cochran, D.D., was called to succeed him.

Through all this period the college had been doing excellent work, coming about the time of the succession of Dr. Cochran from its first home in the San Fernando valley to the immediate neighborhood of the College of Liberal Arts in Los Angeles.

In the hard times of 1893 the trustees thought it expedient to close the Maclay College until its resources should warrant the continuance of its work. At the session of the Southern California Annual Conference in 1907, on the urgent request of the conference, the decision was made to resume work in theology, and its present dean, Rev. E. A. Healy, D.D., was appointed. The current session, 1908-9, is its second year of new life. Dean Healy came to his work with matured knowledge of the requirements of the pastorate, and with large experience in educational work as superintendent and teacher in school and college, his own scholastic honors being the A.B. and A.M. degrees from Victoria and Toronto Universities respectively and the Doctorate in Divinity from his Alma Mater.

Associated with him, completing the Faculty of Instruction, are the following, each of whom is eminent and successful in his chosen field:

#### FACULTY.

Geo. F. Bovard, A.M., D.D.,

President of the University.

Ezra A. Healy, A.M., D.D.,

Professor of Systematic Theology and Historical Theology. James Blackledge, A.M.,

Professor of Hebrew Language and Literature.

Eli McClish, D.D.,

Professor of Christian Evidences.

James G. Hill, A.M., S.T.B.,

Professor of English Bible.

Festus E. Owen, A.M.,

Professor of Green Language and Literature.

James Main Dixon, A.M., F.R.S.E., L.H.D.,

Professor of English Language and Literature.

Matt. S. Hughes, D.D.,

Professor of Pastoral Theology.

Bishop Robt. McIntyre, D.D.,

Lecturer on Homilities.

Geo. B. Smythe, D.D.,

Lecturer on Christian Missions.

The intimate relation of Maclay College to the College of Liberal Arts is of great advantage to both, appearing in the convenience of location on the same campus, and the interchange of credits where subjects are common to the two colleges.

It is the aim of the College of Theology to do all that is possible to furnish the churches of our constituency with preachers who shall be at once scholarly and evangelical and pastors who shall be apt and successful in their difficult work.

In pursuance of this aim the following courses are arranged, with the specified conditions of admission:

1. The Degree Course. A three years' course for students who have obtained the A.B. degree. The completion of this course will entitle the graduate to the degree of Bachelor of Divinity.

# THE COURSES

# Degree

Classical Course.
Church History.
Practical Theology.
Greek.
Hebrew.
Biblical Introduction.

# Diploma JUNIOR CLASS.

Greek-English Course.
Church History.
Practical Theology.
Greek.
Biblical Introduction.
English Literature and Expression.

# Certificate

# English Course.

Church History.
Practical Theology.
Biblical Introduction.
English Literature and Expression.
Systematic Theology.

# MIDDLE CLASS.

Church History.
Practical Theology.
Systematic Theology.
Greek Testament.
English Exegesis.
English Literature and Expression.

Systematic Theology.

Hebrew.

Greek.

Practical Theology.

Church History.

Church History.
Practical Theology.
English Exegesis.
Systematic Theology.
English Literature and Expression.

# SENIOR CLASS.

Systematic Theology.
Practical Theology.
Greek Testament.
English Literature and Expression.
Sociology.

Systematic Theology.

Historical Theology.

Apologetics. Sociology.

Hebrew.

Greek.

Systematic Theology.
Practical Theology.
English Exgessis.
n. English Literature and Expression.
Andogetics

Apologetics. Sociology.

- 2. The Diploma Course. This is also a three years' course, open to students, who have the equivalent of junior standing in the College of Liberal Arts. The Maclay College Diploma will be granted to graduates in this course.
- 3. Students will be admitted as specialists to any classes that, in the judgment of the Faculty, they can enter with advantage, and certificates will be given for all subjects satisfactorily taken.

Admission. A license to preach will be a sufficient credential. Those not so qualified may present a certificate from their pastor as to their fitness to study for the Christian ministry, or for other religious work.

# EXPLANATORY NOTES. Old Testament and Hebrew. Professor James Blackledge.

Related Subjects. The main object of instruction in this department is the securing of a good reading knowledge of the Hebrew text; hence during the first two years of the course special attention is given to oral class-reading exercises—the fundamental principles and rules underlying the Hebrew language—the origin of grammatical forms, with some exegetical study during the second semester of the second year.

A greater part of the first two years is devoted to the study of the text of the Pentateuch. During this time, the student is requested to look up the inscriptions of Isreal's neighbors—the Assyrians and Babylonians—in the library, with the view of aiding in the study of the text.

The principal object of our method of instruction is, by constant review, and frequent composition exercises, to make an otherwise dry study, as interesting as possible. During the latter half of the course will be taken up the studies in Messianic prophecy, with more exegetical work; exegital studies in the minor prophets, and a critical study of the Book of Job. During the last semester of the course there will be grammatical, critical and exegetical studies of selections from the Book of Psalms. During the entire course occasional lectures will be given on the Old Testament and related subjects.

New Testament Exegesis and Interpretation Prof. John G. Hill. This course is designed to furnish the student with an accurate conception of the contents of the more important books of the New Testament, not only as a whole, but in detailed study of leading passages, doctrinal sections, striking discourses, obscure phrases, and significant words.

The effort is, not to read meanings into the passages considered, but to get the original author's exact viewpoint. This is often a most difficult task and calls for modern scientific methods of application in exegesis. To obtain the exact idea intended by the author, the interpretative principles, methods and rules must be learned and applied. Some knowledge of the Greek language will be helpful. Two hours throughout the year, Tuesday and Thursday (hours to be arranged).

Prerequisite. Bible 1, 2, 3, 4,

# PASTORAL THEOLOGY. Professor Hughes.

Dr. Hughes gives one lecture a week on this important subject, and is attracting, in addition to the regular theological students, many ministers who have been long in the pastoral work. His style is strong and clear and holds one's interest to the last sentence. His range of subjects covers the whole field of the pastor's life and work. The place of Pastoral Theology; the history, theory, and practice of preaching; the call to the ministry; the preparation to be added to nature's qualifications for the work; the history, constitution and development of the church; what the church does for the pastor, and the pastor's obligation to the church; relation of children to the church, and of the pastor to the children; the minister and his brethren; the pastor and the Sunday school; the pastor and the literature of the church; his use of books and libraries; methods and means of worship; pastoral visitation; the institutional church; the minister and social problems, such themes and many others, treated in the trenchant style of Dr. Hughes, comprise a course of living interest and great value. Christian workers and others interested are admitted to these lectures.

### NEW TESTAMENT GREEK. Professor Owen.

Those who have had no previous training in the Greek language will register for course 1 in the College of Liberal Arts.

- 2. The Gospel according to John will be studied as a basis for master the language of the New Testament. Harper and Weidner's Introductory Greek Method will be used throughout the year. Two hours both semesters; 2:00 Tuesday and Thursday.
- 3. The Gospel according to Luke; selection from the Acts; Epistle of James, Intensive Grammar and Syntax drill; work derivation and synonyms. Two hours (hours to be arranged).

# CHURCH HISTORY. Dean Healy.

In this subject the work begins with the Life and Times of Christ, and progresses through the Apostolic, Mediaval and Middle ages to Modern times.

The history of doctrine is traced from the beginning; special care is taken with the great movements of the Church, such as the Reformation, the Wesleyan Revival, and the Church in America, including the history of American Methodism. Bishop Hurst's volumes are made a basis, but wide reference is had to standard authors.

### SYSTEMATIC THEOLOGY. Dean Healy.

With the works of Dr. Miley, Professor Sheldon, Chancellor Burwash, and older writers who enter upon the whole field; together with the contributions of specialists on particular topics, students are kept at work in this basal subject through the whole three years.

While modern critics have their hearing, our spirit is conservative, and fidelity to our recognized and tried standards is fostered.

#### CHRISTIAN EVIDENCES.

### Foundations of Faith. Professor McClish.

This course will take up those phases of thought and facts of life that confront the student of today. The idea of God and the divine immanence; man and the legitimacy of the religious principle in the human constitution; the Bible as a revelation of God's revelation of God's relation to, and purpose

concerning man's life and destiny; the facts of conversion and the history of Christianity as witnesses to the divine origin of the system; and a consideration of the assumptions of modern cults which oppose or offer themselves as substitutes for Christianity.

#### THE HISTORY OF CHRISTIAN MISSIONS.

#### Professor McClish.

This course requires two semesters. The first begins with Paul, A. D. 46, and continues to Carey, A. D. 1792. It briefly considers the condition of the world when Paul and Barnabas leave Antioch in the year 46, and studies the missionary spirit that manifested itself to Carey's time under the following agencies: promiscuous, governmental, papal, monastic, mendicant orders, military power, Jesuits, colonization, and denominational. The second semester deals with modern missions, their past, present and promise.

#### ANGLO SAXON BIBLE.

#### Professor Dixon.

A rare opportunity is afforded our students in the presentation of a series of lectures on the Anglo-Saxon Gospels, with readings from the text.

Special lectures on Foreign Missions will be delivered, as last year, by Dr. Geo. B. Smythe. His accurate knowledge and wide experience make these addresses not only valuable to our student volunteers, but of vital interest to all students of aggressive Christianity.

#### TERMS AND EXPENSES.

Tuition in Maclay College is free. A registration fee of \$10.00 a semester is charged, with \$2.00 from men who take training in gymnasium and on the athletic field.

Lectures by men and women of eminence in special fields are given frequently in the College Chapel and are free to all our students.

Three hours in each semester will be allowed in the College of Liberal Arts without charge. For additional subjects, the rates current in that college.

Advantageous terms have been secured with the College of Oratory for a course in Bible and Hymn reading.

The departments of History, Sociology, Biology, and Metaphysics in the College of Liberal Arts are convenient and attractive.

#### CALENDAR.

Registration Day, October 4th.

Lectures begin October 5th.

Subsequent dates uniform with those of College of Liberal Arts.

Numerous charges in the vicinity of Los Angeles find pastors among our students, and our District Superintendents are glad to make such arrangement where it is mutually satisfactory.

An information and employment bureau is maintained by the University Y. M. C. A., which is very helpful to those who wish to support themselves while in attendance at college.

Number of students enrolled, thirty-seven, besides a class of thirteen in the special study of missions.

Credits are allowed by the Board of Examiners of the Annual Conference for all subjects passed in Maclay College.

For additional information apply to E. A. Healy, Dean, University, Los Angeles, Cal.

# The Preparatory School.

#### CALENDAR 1909-1910.

```
1909.
Sept. 13
                      ) Entrance examinations and registration
          Monday
Sept. 14
                         for the First Semester.
          Tuesday
Sept. 15
          Wednesday
                       Instruction begins.
Nov. 25
         Thursday
                       Thanksgiving Vacation.
Nov. 26
         Friday
Dec. 21
         Monday
  1910
                      Christmas Vacation.
Jan.
         Sunday
Jan. 27
         Thursday
                       Day of Prayer for Colleges.
Jan. 28
         Friday
                      Mid-year Examinations.
Feb.
         Wednesday
Feb.
         Wednesday
                       First Semester ends.
Feb. 3
         Thursday
                      Entrance examinations and registration
Feb. 4
         Friday
                       for the Second Semester.
Feb.
     7
                       Instruction begins.
         Monday
Feb. 22
                       Washington's Birthday.
         Tuesday
Mar. 25
         Saturday
                       Spring Vacation.
April
     4
          Sunday
     9
June
         Thursday
                      Final Examinations.
June 14
         Tuesday
         Wednesday
                       Graduation Exercises.
June 15
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#### GENERAL STATEMENT.

The Preparatory School is maintained in connection with the College of Liberal Arts. All of the instruction in the Preparatory School is under the supervision of the college faculty, thus insuring the best preparation for entrance to college. The students enjoy all the general advantages open to students in the College, including library, lectures, laboratories, religious and social privileges.

While the work of this school is mainly that of preparing students directly for the College, yet without lessening the work in this direction, the authorities realize the importance of giving increased attention to the large number of young people who desire academic instruction, but do not wish to devote the necessary time and means to secure a collegiate education. For

this large and worthy class, the school purposes to provide sufficient facilities, so that in the limited time at their command they may acquire some preparation for their future work.

#### Requirements for Admission.

Applicants must have finished work equivalent to that required for admission to the high schools. They must show evidence of fitness to begin the work of the classes in the school. Persons who wish to take a partial course, or to select their studies, can enter the preparatory school without a formal examination, and pursue such subjects as they may be prepared to take.

#### Registration.

The method and regulations in registration are the same as those in the College. (See page 31.)

#### Absence from Exercises.

The rules and regulations concerning absences from required exercises are the same as in the College (see page 35).

#### CHAPEL.

The Chapel period is 9:50 to 10:30 Monday, Tuesday, Thursday and Friday of each week. Attendance is required. When the record shows more than nine unexcused absences at midsemester the registration of the delinquent student is cancelled. Restoration may be secured only on the recommendation of the faculty committee on chapel attendance. Wednesday of each week, at the chapel period, the Young Men's and the Young Women's Christian Associations hold their respective devotional services, to which the students are cordially invited.

#### Reports.

Reports of standing are sent to the parent or guardian of each student each month. The Faculty desire the co-operation of parents in their efforts to maintain a high grade of scholar-ship and deportment.

# COURSES OF STUDY

'ollege of Liberal Arts, or institutions of similar standing. A student who has completed one of these courses is The regular courses of study are four in number, any one of which is designed to prepare students to enter admitted to the College without examination.

NOTE. The figures denote the number of class recitations (or their equivalent in laboratory work and drawing per week). matics A Chemistry Algebra. \*Mathe-Physics. Botany. Electives Drawing, 8:55-12:10 M. German. Chemistry, Recit. 11:20 English. T., Th., Fr., Lab. 1:65-Latin. 2:55, W., Th. German. W., 1:05-3:40 M., T., W. French. Physics, Recit., 8:55 Spanish English M., Tu., W., Th., 10:25 Greek. Physics, Recit., 8:551 M., T., W., Lab. 1:05-3:40 Th., F. Latin, 10:25 or 1:05 or \*Mathematics A., 1:05 Botany, Recit., 11:20, 4 Zoology, Recit., 2:60, 5 Drawing, 8:55-12:10 M. M., Vab. 10:35, M., W., Tab. 2:50 M., W., 1:05-3:40 M., T., W., 10:25-11:20, T., Th., W., 2:00-2:55 T., Th. W. Gym.—Boys, 2:00, 2:55, 2 Gym.—Boys, 2 Gym.—Boys, 2:00, 2:55 Girls, 10:25, 11:20, 1:05, †German, 11:20. Algebra, 10:25. Drawing, 8:55-12:10 M. Girls, 10:25, 11:20, 1:05 Plane Geom., 8:55. Amer. Hist., 10:25. Expression, 2:00. German, 10:25. Algebra, 11:20 English, 1:05. English, 2:00. Elective. 5 Elective. Algebra, 11:20. Expression, 2:00. Gym.—Boys, 2:00, 2:55, 2 Chemistry, Recit. 11:20 5 T., Th., Fr., Lab. 1:05-2:55, W., Th. 2:00, English, 2:00. Botany, Recit., 11:20 M., W., Lab. 10:25 M., W., 10:25-11:20 T., Th. 5 8:55 5 M., T., W., Lab. 1:05-Girls, 10:25, 11:20, 1:05. Girls, 10:25, 11:20, 1:05. Plane Geom., 8:55. Amer. Hist., 10:25, Physics, Recit., fGerman, 11:20. Zoology, Recit., German, 10:25. 5 English, 1:05. 5 Latin, 8:55 or English, 2:00. Elective. Elective. 5 Elective. Physics, Recit., 8:55 M M. T. W. Lab. 1:06- W 3:40 Th., F. or Chemistry, Recit, 11:20 F T. Th. F. Lab. 1:05- 3 2:55, W., Th. 10210 Gym.—Boys, 2:00, 2:55, Girls, 10:25, 11:20, 1:05, Girls, 10:25, 11:20, 1:05. Latin, 10:25 or 1:05, Plane Geom., 8:55. Amer. Hist., 10:25. Expression, 2:00. English, 1:05. Latin, 8:55. Anc. Hist., 2:00. Algebra, 11:20. 3 English, 2:00. 5 Latin, 10:25 o English, 8:00 latin, 8:00. Elective. 5 Elective. English 1:06. | E E Latin, 8:56. | E Latin, 8:56. | Latin, 8:56. | Latin, 8:56. | Latin, 8:56. | E Latin, 11:20, 4 B M., W. Lab. 10:25, M., M. W., 10:25-11:20, T. Th. V. Gym.—Boys, 2:00, 2:56, 2 G Gym.—Boys, 2:00, 2:56, 2 8:55 5 100101 Jym.—Boys, 2:00, 2:55, Girls, 10:25, 11:20, 1:05. 11:20 Girls, 10:25, 11:20, 1:05. Latin, 10:25 or 1:05. Physics, Rectt., M., T., W., Lab. 1 3:40 Th., F., or T., Th., F., Iscit., I T., Th., F., Lab. 1 2:55, W., Th. Plane Geom., 8:55. Amer. Hist., 10:25. Expression, 2:00. Algebra, 11:20 English, 2:00. 11:20. Greek, 10:25. Latin, 8:00. Elective. Greek, 1st Year 2nd Y 4+1

Students who have received credit for two years of German and who intend to take up German 2 in their freshman year n College must review the second semester of German 1 (College) in their last semester in the preparatory school Mathematics A includes Trigonometry, Solid Geometry, and a review of Algebra.

#### Graduation and Diplomas.

The Preparatory School has a special evening set aside in commencement week for its graduation exercises.

Each student who completes one of the regular courses of study will be granted a diploma.

#### Literary Societies.

The Webster Literary Society is composed of young men who meet each week for training in public speaking.

The Willard and Annesley Literary Societies are composed of young women who meet each week for training in literary work.

#### DEPARTMENT OF INSTRUCTION.

#### ENGLISH.

#### First Year. First Semester

1. Expression. Two hours a week.

This course is designed to make the student more proficient in common reading, and to enable him not only to interpret clearly the literary thought, but to express it as well.

Much stress is laid upon English Phonation. Perhaps there is no subject in education that is of so much importance, and yet so deeply neglected. "The manner in which one speaks his mother tongue is looked upon as showing more clearly than any other one thing what his culture is, and what is associations have been." Selections from the best literature will be used in the study of the principles of vocal expression. Sight reading will be one of the features of the work.

Review of Technical Grammar, with practice in Writing Compositions. Three hours a week.

#### Second Semester.

- 1. Expression (see above). Two hours a week.
- 2. Rhetoric and Themes. Two hours a week.
- 3. Classics. One hour a week.
  - A. Orving: Selections from Sketch Book.
  - B. Hawthorne: Tales of the White Hills.
  - C. Lowell: Vision of Sir Launfal.

#### Second Year, First Semester.

- 1. Rhetoric: Gardiner, Kittredge and Arnold. One hour a week.
- 2. Themes: Special attention to rhetorical structure. One hour a week.
  - 3. Classics. Three hours a week.
    - A. Scott: Lady of the Last Minstrel.
    - B. De Coverley Papers.

Coleridge: Ancient Mariner.

#### Second Semester.

- 1. Rhetoric: Gardiner, Kittredge and Arnold. One hour a week.
  - 2. Themes. One hour a week.
    - 3. Classics. Three hours a week.
      - A. George Eliot: Silas Marner.
      - B. Scott: Ivanhoe.
      - C. Shakespeare: Merchant of Venice.

#### Third Year.

#### First Semester.

- 1. Rhetoric: Blaisdell. One hour a week.
- 2. Themes: Exposition and Description. One hour a week.
- 3. Classics. Three hours a week.
  - A. Carlyle: Essay on Burns.
  - B. Burns: Selected Poems.
  - C. Tennyson: Idylls of the King.
  - D. Shakespeare: Midsummer Night's Dream.

#### Second Semester.

- 1. Rhetoric: Blaisdell. One hour a week.
- 2. Themes: Narration and Description. One hour a week.
- 3. Classics.
  - A. Macauley: Essay on Warren Hastings.
  - B. Lincoln's Inaugurals and Webster's Gettysburg Speech.
  - C. Milton's Minor Poems.
  - D. Shapespeare: Julius Caesar.

#### Fourth Year. First Semester.

- 1. Painter's Elementary Guide to Criticism. One hour a week.
  - 2. Themes: Exposition and Argument. One hour a week.
- 3. Gayley and Young's Principles and Progress of English Poetry. Three hour sa week.
  - A. Outline-History of English Literature.
  - B. Chaucer, Gray, Wordsworth, Shelley, Keats, Byron, and Browning.

#### Second Semester.

- 1. Themes: Exposition and Argument. One hour a week.
- 2. Classics. Four hours a week.
  - A. Burke: Speech on Conciliation.
  - B. Webster-Hayne Debate.
  - C. Poe: Poems and Tales.
  - D. Shakespeare: Macbeth.

#### GERMAN.

#### First Year.

Collar's Beginning German. This text books provides the material for the first year's course. It comprises studies in pronunciation, grammar, drill on the forms, elementary conversation, and various anecdotes and poems for translation and memorizing. Further interesting reading and material for conversation and composition is taken from Guerber's Maerchen und Erzaehlungen.

#### Second Vear.

The grammar is finished and reviewed. Various modern Germar stories, poems, and plays are read and reproduced, both orally and in the form of written exercises.

The class work is conducted mainly in German, and the ability to read accurately and fluently and express simple thoughts in spoken and written German is required.

#### GREEK.

#### First Year.

White's First Lessons is used throughout the year. The aim of the first year's work is thoroughly to acquaint the pupil with forms.

#### Second Year.

During this year the first four books of Xenophon's Anabasis are translated. Daily practice is given in sight reading. Pearson's Greek Prose Composition is used throughout the year. The work is made the basis of a thorough drill in grammar. Goodwin's Greek Grammar is used for reference.

#### Third Year.

Books I-IV of Homor's Iliad are read and translated. Practice in sight reading is given daily from Books V and VI. Scansion, forms, syntax and mythology are given special attention. Pearson's Greek Prose Composition is used throughout the year.

Note. Beginning classes in Greek are carried on in the College Department in which the work outlined above is covered in two years. Preparatory students who show special ability and strength in this subject are admitted to these College classes and are advised to avail themselves of this privilege. The same credit (three units) is given to Preparatory students in these classes as is granted in the Preparatory Department for the three years work.

#### HISTORY.

The work in History is carried on by means of text-books, lectures, essays, and library work. Constant reference is made to the atlas and dictionary, maps are drawn, essays required, and the topical method is used for special subjects. Full and carefully kept note books are required in all the subjects in this department.

- 1. Ancient History. Greek and Roman History. One year.
- 2. American History and Civics. One year.

#### LATIN.

#### First Year.

The aim of the first year's work is to attain an accurate pronunciation, a thorough knowledge of all the regular forms of declension and conjugation, together with the simpler principles of syntax, and vocabulary of about eight hundred common words.

#### Second Year.

Four books of Caesar's Gallic War are read. Regular forms are reviewed and essential irregular forms are learned in a systematic study of Latin grammar. There is regular practice in oral or written translation into Latin of exercises based on the text read, and slight translation is an important part of the year's work. Some attention is given to subject matter.

#### Third Year.

In the reading and interpretation of six of Cicero's orations the time is equally divided between language and subject matter. The grammar is thoroughly reviewed in regular oral or written composition based on the text. An attempt is made to gain a definite knowledge of Cicero and his age, of the Roman government in Cicero's time, and of the city of Rome. The simpler letters are read at sight.

#### Fourth Year.

The first six books of Vergil's Aeneid are read and interpreted. A special effort is made to approach the work as poetry. Prosody, figures of speech, mythological references, and poetical constructions are studied. Metrical reading is insisted upon. An idea of the Aeneid as a whole is gained by the sight reading of portions of the last six books. Two days each week are occupied during the first semester in a review of syntax and in prose composition.

#### .MATHEMATICS.

The aim of the course in mathematics is to cultivate the habits of independent reasoning, of accuracy of work, of precision and clearness in the statement of conclusions and the reason upon which they depend. First in importance is the intellectual training that makes the mind a ready and keen tool; second, the orderly acquisition of facts. Absolute thoroughness and work that increases in amount and difficulty with the student's increasing capacity, are required. The student's efficiency is measured by his power to do. Throughout the course written reviews and test examinations are frequent.

#### Algebra, First Year.

Wentworth's New School Algebra, through Quadratics, Special emphasis is placed on factoring and on the solution of equations. The object of the study is not only to acquire a knowledge of the subjects required for admission to the leading universities, but to secure the mental discipline for its own sake, and such a drill as looks to the use of the algebraic method in future study.

#### Algebra, Second Year.

Beman and Smith's Elements of Algebra. A review of the first year's work is taken, and the text book is completed. This work is supplemented by lectures on the theory of algebra, and these form a most important part of the course.

#### Algebra, Third Year,

Fisher and Schwatt's Higher Algebra, two hour a week. This course is given as an elective for students of marked mathematical ability, and is open only to those who have taken Course 2

#### Geometry.

- 1. Plane Geometry. One year. Careful attention is given to constructions, clear and logical expression, and above all to the attainment of the power to do original work in geometry. The exercises of the text-book are supplemented by constant suggestions by the teacher for investigations.
- 2. Solid Geometry, four hours a week, during the second semester.

#### Trigonometry.

Plane Trigonometry, and a brief study of Logarithms and the solution of the Right Spherical Triangle, four hours a week, during the first semester.

#### DRAWING.

#### First Year.

Ten hours a week.

Freehand Drawing: First Semester—Elementary line work from geometric solids and simple natural objects.

Second Semester, advanced line work in pencil from casts and still life, flat wash in black and color.

#### Second Year.

Ten hours a week.

Instrumental Drawing: First Semester-Linear drawing, simple geometric problems, lettering.

Second Semester, advanced geometric drawing, conic sections, projections.

#### PHYSICAL TRAINING.

#### First Year.

Systematic class work. This consists of vigorous drill with dumb bells, clubs, bar bells, etc., for the men; for the women, general development exercises in walking and running, simple, free movements, recreative games and outdoor sports. Required of all first year students. Four hours a week.

#### Second Year.

Progressive graded work on various pieces of gymnastic apparatus, mat work and gymnastic games for the men; more difficult free movements, relaxing exercises, mat work, walking, drill, and dumb bells and games in the open air for the women. Required of all second year students. Four hours a week.

#### SCIENCE.

#### Biology.

Botany and Zoology, each given as a full course of eight hours per week, for one year. The work in each is a combination of laboratory study, lectures and recitations, with a careful notebook record of the work actually done by the student under the direction of the teacher. The ground covered and the methods employed are such as fully meet the requirements of any college to which the student might desire to go.

#### Chemistry.

The subject of Chemistry continues throughout the year, and includes all the general principles theoretical and practical of inorganic chemistry, such as given in McPherson and Henderson, Elementary Study of Chemistry. Recitations and individual laboratory work occupy not fewer than seven hours per week. A special effort is made throughout to develop the scientific habit of thought and to lead the student to observe

the chemical changes constantly taking place. In the laboratory each student is furnished with a desk and all necessary reagents and apparatus, and is required to keep a complete record of the work done during the year.

A laboratory fee of eight dollars per semester, and an additional deposit of five dollars is required. The loss by damage or destruction of apparatus will be deducted from the deposit of five dollars, and the balance refunded at the close of the semester.

#### Physics.

This course is designed to give the student a familiarity with the principal facts, laws and theories of Physics. This is accomplished by the careful study of a text and definite laboratory work for one year.

#### GENERAL INFORMATION.

For general information concerning location of school, religious privileges, library and reading room, the museum and the science laboratories, athletics and the gymnasium, see pages 42-51.

#### PREPARATORY SCHOOL.

#### Tuition and Fees.

Tuition, for six to ten hours, per semester	Tuition, for six to ten hours, per semester	Tuition, per	sen	ieste:	r, 1n	adva	ance					. 8	\$35.00
Tuition, for five hours, or less, per semester 17.00 (Hours as used above means so many hours per week.)  Gymnasium and Physical Education (including admission to all inter-class games), required of all students 2.00 Gmynasium and Physical Education taken without other studies, per semester 8.00 Registration fee included in above, but not subject to rebate 5.00 Diploma fee	Tuition, for five hours, or less, per semester	Tuition per	year	tw	o ser	neste	rs) i	f pai	d in	adva	nce		67.00
(Hours as used above means so many hours per week.)  Gymnasium and Physical Education (including admission to all inter-class games), required of all students  Gmynasium and Physical Education taken without other studies, per semester 8.00  Registration fee included in above, but not subject to rebate	(Hours as used above means so many hours per week.)  Gymnasium and Physical Education (including admission to all inter-class games), required of all students 2.00  Gmynasium and Physical Education taken without other studies, per semester 8.00  Registration fee included in above, but not subject to rebate 5.00  Diploma fee	Tuition, for	six	to t	en ho	ours,	per	seme	ster				25.00
Gymnasium and Physical Education (including admission to all inter-class games), required of all students Gmynasium and Physical Education taken without other studies, per semester	Gymnasium and Physical Education (including admission to all inter-class games), required of all students  Gmynasium and Physical Education taken without other studies, per semester	Tuition, for	five	hou	ırs, o	r les	s, pe	er se	meste	r			17.00
sion to all inter-class games), required of all students Gmynasium and Physical Education taken without other studies, per semester	sion to all inter-class games), required of all students  Gmynasium and Physical Education taken without other studies, per semester	(Hours a	is us	sed a	bove	mea	ns so	mai	ny ho	ours	per '	weel	c.)
Gmynasium and Physical Education taken without other studies, per semester	Gmynasium and Physical Education taken without other studies, per semester       8.00         Registration fee included in above, but not subject to rebate       5.00         Diploma fee       5.00         Laboratory fees—       8.00         Physics       4.00         Botany       4.00	Gymnasium	and	Phy	rsical	Edu	catio	n (i	nclud	ing :	admi	8-	
studies, per semester	studies, per semester       8.00         Registration fee included in above, but not subject to rebate       5.00         Diploma fee       5.00         Laboratory fees—         Chemistry       8.00         Physics       4.00         Botany       4.00	sion to all	inte	er-cla	iss ga	ames)	, req	uired	of a	ill st	udent	ts	2.00
Registration fee included in above, but not subject to rebate           rebate	Registration fee included in above, but not subject to rebate         rebate	Gmynasium	and	Phys	sical	Educ	ation	take	n wi	thout	othe	er	
rebate        5.00         Diploma fee        5.00         Laboratory fees—        8.00         Physics        4.00	rebate        5.00         Diploma fee        5.00         Laboratory fees—        8.00         Physics        4.00         Botany        4.00	studies, p	er se	emest	er								8.00
Diploma fee	Diploma fee	Registration	fee	incl	uded	in a	bove	, but	not	subj	ect t	ю	
Laboratory fees—           Chemistry	Laboratory fees—         Chemistry	rebate				• .							5.00
Chemistry         .         .         .         .         .         8.00           Physics         .	Chemistry												5.00
Physics 4.00	Physics 4.00 Botany ,	Laboratory	fees-										
· · · · · · · · · · · · · · · · · · ·	Botany , 4.00	Chem	istry								.*		8.00
Botany , 4.00	Pro N												4.00
	Zoology 4.00												4.00
Zoology 4,00		Zoolo	gy										4.00

An additional deposit of five dollars to cover breakage is required in Chemistry. This deposit, less cost of breakage is refunded at the end of the year.

Students who are recommended by a quarterly conference as candidates for the ministry; young women who are recommended for the work of Deaconesses by a quarterly conference and the Conference Board of Deaconesses; and the children of ministers in the regular work of any evangelical denomination, may have their tuition reduced to one-half the regular rate.

A discount of ten per cent of the tuition will be allowed when two or more students enter from the same family.

No rebate will be allowed for less than one-half a semester's enforced absence.

#### The Declamation Prize.

A prize of ten dollars, offered to the student who wins in contest in decamlation, was awarded in 1908 to Hattie E. Foster.

#### Rooms and Board.

Students are required to submit to the Faculty a statement of the places where they desire to room and board, and must secure their consent in each case.

Board and furnished rooms can be secured in private families at from three dollars to five dollars per week. Furnished rooms accommodating two students cost from four to eight dollars per month.

Other expenses incident to school life vary with the habits and circumstances of the student. They are not, of necessity, so great as to be burdensome to persons in moderate circumstances. The instances have been extremely rare in which students of good ability and health have been compelled to leave the school for want of money.

For further information address

President George F. Bovard,

Los Angeles, California.

# Catalogue of Students.

#### THE COLLEGE OF LIBERAL ARTS.

Name Adkinson, Kathryn Wiley	Major	Hours Home Address
Allan, Roy Folger		15 Los Angeles
Allen, Anais Julia		
Allen, Charles Lewis, Jr	0	O O
Allen, Florence Elizabeth		
Anable, Mrs. Sarah Richard		
Anderson, Rembert Coddington.		
Ashcraft, Norman Blaine		
Asher, Katherine Lucille		,
Atlee, Marguerite Leslie		
Avakian, Arsen Harootune		
Back, Welcome Lawrence		
Bailey, LeRoy Harrison		
Baker, Donald McCord	0	0
Ball, Adelaide Leffler		
Ballard, John Hudson		
Bancroft, Roy Francis	Drawing.	Tropico
Barnhart, Percy Spencer	Zoology	. 19Los Angeles
Baxter, Kathryne Gladys		
Beal, William Wilson		
Behymer, Elsie Olive		
Bell, Edna Elcedena		
Benson, Martha Faye		
Berryman, John R		
Berryman, Olive Perkins		
Bien, Beulah Vernon		
Bishop, Harold A		
Blackburn, Porter Conrad		
Blackman, Merl A		
Blood, Charles Newman	C. Eng	11Los Angeles
Boardman, Lees M	E. Eng	11 Santa Monica
Boller, Gordon		60Los Angeles
Boller, Stanley		17Los Angeles

Name Bostwick, Florence Fern	Major English	Hours Home Address
Bouton, Mrs. Elsa J		
Bovard, Edna Georgia		
Bowers, Chester Herbert		
Bowers, Evelyn Cummings		
Bowser, Charles Arthur		
Brallier, Mary Reber		
Bridges, Ruth Gladys		
Bridges, Sadie Ethel		
Brim, Minnie		
Brode, Alverda June		
Brown, Edgar Kapp		
Brown, Frederic Raymond		
Brown, James Lorin		9
Brown, Maggie Jane Eiffel		
Bruce, Ray William		
Bruckman, Edith Louise		
Buchanan, Genevieve		
Buffington, Charles Stewart		0
Burek, Stanislaus Leo	Chem	104 Wausau, Wis.
Burk, Earl Elihu	.Zoology.	39Long Beach
Burleson, Frank Edward	.E. Eng	Los Angeles
Burmeister, Emma Minnie	.Latin	91Los Angeles
Burmeister, Laura Elise		
Burris, Mrs. Lillian Victoria		
Burton, Vincent Staub	C. Eng	Glendale
Bushnell, Lillian May		
Butler, Joseph Henry		
Butters, Lauretta Marguerite.		
Byrer, Clarence W		
Cain, Morris Allen		
Carlson, Hilma Sophie	_	
Carrell, Frank Robert		
Carrell, Leland Joy		
Cates, Charles Barker		
Cechin, Mae Margaret		10Corona
Chadwick, Nina May		
Chamlee, Nettie Emeline		
Chelgrene, Silva Elisa Dora	.English.	101Los Angeles

Name Chrisman, Chester Russell	Major	Hours 2	Home Address
Christopher, Edward Linn	M. Eng.	38	Los Angeles
Clardy, Grady	M Eng	16	Santa Ana
Clark, Ralph Waldo			
Clark, Stephen Hart			
Clark, Jennie Carlie			
Clay, Mrs. Jennie Troxel			
Clay, Thomas Lyman			
Close, Katherine Margaret			
Cocks, Edna Agnes			
Cogswell, Frederick Allen			
Coller, Helen Amanda			
Collison, John Clyde			
Coloneus, Grover Cleveland			
Cone, Ruby Vernell			
Conlee, Florence		. 5	Los Angeles
Cook, Clarence Westgate			
Cooper, Judge			
Cooper, Leslie Judson			
Cooper, Renel Fenimore			
Corbin, Anita Elisa		. 8	Los Angeles
Corbin, John Walker			
Cowan, James Ray			
Coyne, Robert John			
Crabb, Alice			
Crall, David Edwin			
Crandall, Norman			
Cronemiller, Flora May			
Crook, Frank Peter			Whittier
Crooker, Leon James			
Crossman, Ralph			
Cushman, Clara Elizabeth			
Cynn, Hugh Henngwo		. 27	Los Angeles
Davidson, Joseph George			
Davidson, Harold Edwin	E. Eng	. 93	Alhambra
Davidson, Jennie I		. 15	Los Angeles
Davidson, Mildred Elizabeth	. English	. 71	Los Angeles
Dawson, Maud Ethel		. 32	Los Angeles
Dayman, Evelyn Laura	. English	. 19	Long Beach

Dell, Hazel	Major English	Hours Home Address
Dennen, Ruth Mildred		
Dick, Samuel Finley	. English.	42 Glandala
Donahue, Marie Aloysius	Fnæligh	20 Los Angeles
Dority, Milton Henry		
Doud, Carl E.		
Dowds, Roy Wilson		
Downs, Alfred Jonathan		
Draper, Ella Martin		
Ebihara, Shichiro		
Ellingson, Alma Gladys		
Ellingson, Jennie Margaret		
Ellington, Frederic Merton		
Elliott, Harry Charles	History	17 Fullerton
Ensley, Oliver P		
Evrist, Charles Emer		
Fallas, Roy Edwin		
Fambrough, Mrs. S. B.		
Faries, David Reid		
Farrington, Mabel Winnifred		
Felker, Anna Mary		
Ferguson, Catherine Louise		
Ferguson, Maude Mary		
Fisher, Rachael Alberta		
Fitch, Frank Brewer		
Fletcher, Katheryn		
Franklin, Austin Wilson		
Fraser, Christine Rettie		
Frazier, Paul Venard		
Fredenburg, Mary Pauline		
Galliher, Pearl Lowena		
Gardner, Vera		
Gates, Austin Bryant		
Gay, Leslie F. Jr.		
Geller, Roscoe Glenn		-
Gholz, Walter Irwin		
Gibbs. Robert Adams		
A. B. University of		
Gilman, Ethel Susan	History	16 Ranning
Offinal, Ether Susan	III is to I y	IV Danning

Name Glaspey, Rexford Mason	Major E Eng	Hours Home Address
Goodall, Samuel Erle	. E. Eng	10 Chateworth
Goode, W. H. C. Jr.		
Goodenow, Harold Wheelock		
Goodhue, Helen		
Goodsell, Joy G		
Gordon, Howard Elmore	. с. спд	Conto Ano
Gower, Harrison Preston	C Ena	Santa Ana
Gower, John T		
Grace, Charles Stewart		
Graettinger, Rupert Fred		
Gray, Jessie Mary		
Green, Arthur William		
Green, Florence L		West Union, Ia.
Green, Gladys		
Grow, Jessie Avery		
Guild, Ellis Darwin		
Hackett, Harold Arthur		,
Hagerman, Alfred		
Haigler, Charles Alvin		
Haley, John Otis		
Halfpenny, Ida Belle		
Halfpenny, Mary Lillian		
Hall, Walter Alexis		
Hollan, Margaret Frances		
Halverson, Inga		
Hamer, Alvin Charles	.Zoology	Los Angeles
Hamilton, Eleanor Frances		
Hampton, Lorenzo Arnie		
Hanna, Tacie May		
Hansen, Lulu Lindley	. English	. 27Los Angeles
Hassheider, J. Harry		. 11Los Angeles
Hatch, Lee	.Latin	Los Angeles
Hatch, William	.C. Eng	Whittier
Hatcher, Mabel Adrienne	Spanish	. 46 San Jacinto
Haydock, Earl Henry	.History	. 48 Tulare
Hawk, Helen Marie	.Botany	.119Los Angeles
Heacock, Helen Gertrude		. 15. Springfield, Neb.
Healy, Lulu May		

Name Henderson, Randall Thomas	Major	. 45 Fort Morgan, Col.					
Hidden, Carrie Maybelle	. History	. 83Los Angeles					
Hill, Joheph Tyler	.Phil	. 19Los Angeles					
A, B. Universi							
Hitt, Eleanor							
Hoashi, Riichiro							
Hogan, Ethel Josephine							
Hogan, Nelson Stary							
Horton, Mark McKendree							
Howe, John Paul							
Hubbard, Danna Hawthorne							
Hughes, Winfield Scott							
Humphrey, Helen Rosebrook							
Hurst, Florence Louise							
Huston, Luther Allison							
Ickes, Sydney Frank							
Iliff, Ruth Margaret	.German	. 38 Whittier					
Ito, Heijiro							
Jackson, Marie Herbert	. History	. 48Los Angeles					
Jackson, Wayne Bassett	.Chem	. 57 Hollywood					
Jacobs, Mamie Blanche	.English	. 22So. Pasadena					
James, Everett Rockwell	. Econ	. 50 Hollywood					
Jeffers, John F. Robinson							
A. B. Occidental College.							
Jessup, Walter Edgar	.C. Eng	. 65Los Angeles					
Johnston, Inez Aline							
Johnson, Nicolina							
Jones, Clarence Edward							
Jones, Alanson Halden							
A. B. Univ. of Vermont; M. D							
Joslin, Phoebe Ione							
Keeney, Florence Alice L							
Kersey, Vierling							
Kittle, Walter F							
Koebig, Kurt		Los Angeles					
Koebig, Walter C							
Kuhnle, Carl Herman							
Kuster, Mrs. Edward G							
A. B. University of S	Southern Ca	aliforna.					

Name	Major Hours Home Address
KuyKendall, Alfred	Major Hours Home Address . History Los Angeles
LaClair, Olive Rebekah	French 17Long Beach
	.Zoology 5Salem, Ore.
	.History100Los Angeles
	34Laramie, Wyo.
	16Los Angeles
	.English107 San Diego
Lennox, Howard Murray	15 Glendale
	8+Los Angeles
Locke, Ruth Wood	
Loly, Kathleen Dorothy	
Longhead, Elizabeth E	Los Angeles
Luxton, Wilber Frederick	.C. Eng 6Pasadena
	.Econ 7Los Angeles
Malcom, John Sheldon	Long Beach
Mallory, Gertrude	.English 92Los Angeles
	.French 49Los Angeles
Martin, Leonard Camburn	Webster Groves, Mo.
Martin, Paul Erskine	16. Deadwood, S. D.
McAleer, Charles T	8Los Angeles
McClellan, Leslie Newman	.E. Eng 43 Riverside
	Los Angeles
McCorkle, Annie Rowland	15Los Angeles
McCray, Aaron Calvin	Los Angeles
	.E. EngSalt Lake, Utah
McEndree, Fay Nina	.German 50Los Angeles
McEuen, William Wilson	.Math 15 Riverside
McNeil, Diana Bralah	. History 108 Palmas, Africa
	Los Angeles
	.Chem 16Los Angeles
	. History 111 Los Angeles
	.History120 St. Helena
	.M. Eng 46 Los Angeles
	14Los Angeles
montague, meien	14 Los Kugeles

Monteleone, Joseph	Major Zoology	Hours Home Address
Monteleone, Stephen	. Zoologj .	Downey
Moody, Clarence L		
Moody, Egbert Earl		
Moore, Clark Alphonso		
Morgan, Ralph Stoneberger		
Morlan, Rae Belle		
Morse, Edward Peck		
Moses, Marian Tytherleigh		
Mowers, Beatrice Mary		
Mulock, Kate Gray		
Munn, Helena Beatrice		
Munson, Arthur Case		
Murray, Guy Forrest	.Chem	13Chino
Murray, Hamilton		
Myers, Edith Marie Marshall		. 14Los Angeles
Myrick, Lydia		
Nazareth, Pere Gaac Peter	.Chem	. 3Los Angeles
Nichols, Ross Martin		
Nigg, Rose Annetta		
Neer, Ethel Christine		
Neiswender, Chester Bernard		
Nemechek, Rudolph Joseph	.C. Eng	18. Oklahoma, Okla.
Newkirk, William Bently		
Newmire, Earl Stewart		
Noble, Carrie M		
Nuffer, Grace Amelia	_	•
Oakley, Elizabeth Mary		
Obarr, Richard Halsel	. English	. 42 Santa Ana
Olden, Charles Stevens		
Osborn, Preston Emerson		
Oswald, Christian	. History	. 67Los Angeles
Oyuki, Masanosuke		
Palmer, Bertha Louise		
Palmer, Edward Augustus	• • • • • • • • • •	Montville Conn.
Parish, Grace		. 52+. Claringa, Iowa
Parks, Elizabeth Florence		
Parmelee, Florence	Zoologg	76 Los Angeles
Parmenter, Charles Leroy	. Zoolozy	. 70 Los Angeles

Pasko, Ruth Matelma	Major	Hours Home Address
Pasko, Ruth Matelma	. English	. 7 Ocean Park
Patterson, Clova Floyd		
Paulin, Harold David		
Paxton, Percival Curtis		
Phillips, Harry Francis		
Pitman, Ruth Else		
Pitner, Helen		
Powell, Mary Irene		
Prather, Wilbur William		
Price, Edward Haynes		
Prince, Claude Raymond		
Rafferty, Thomas Grover		
Ralston, Glancy Sherman		
Reberger, William		
Reed, Leslie James		
Reed, Wallace Allison		. 42 Covina
Reser, Raymond Lawerena		
Rice, Nettie Belle		Santa Monica
Richardson, Frank Robert		
Richardson, Grant	. Econ	. 31Santa Paula
Riche, Mansel Joseph		
Rickard, Ernest Woodward	.C. Eng	. 72 Hemet
Riley, Allan Furgeson		. 6Garden Grove
Ritchey, Mattie J	.Latin	120Santa Ana
Rivers, Lilian Frances	.English.	11Los Angeles
Roberts, Charles Wesley	.English.	78San Miguel
Roberts, David Berwyn		
Robertson, Blanche Louise	.English	. 62 Ontario
Robinson, Flora Humason		
Robinson, Frank Willard		
Robinson, Ralph Leonard		
Rogers, John	.M. Eng	30Los Angeles
Romig, Edith May		
Roome, Beatrice May		
Roome, Harry Verrinder		
Rosenkranz, Herbert Augustus.		
Rowley, Nathan Ellsworth	. Econ	44Escondido
Ruschhaupt, Theodore August.		
Ryan, Bernice Lorane		
		9

Nama	Major	Hours	Homo Address
Ryan, Sylvia Nigel	.Spanish.	41	Los Angeles
Saverien, Arnold Egard			Los Angeles
Saylor, Oliver			
A. B. Lawren	ce Univer	sity.	
Schelm, Edith Caroline			Charter Oak, Ia.
Scherb, Louise Henry			
Schieber, Oliver Jay			
Schoeller, Jacob Diehl			
Scott, Benjamin David		58	Los Angeles
Scott, Homer Davis		6	Los Angeles
Seppi, Joseph Lewis			
Sheats, Lura Marie	.English.	114	Santa Ana
Sinclair, Roscue	.E. Eng	27	Los Angeles
Skinner, John Kenneith	.M. Eng	35	Los Angeles
Smith, Cleauncey			Los Angeles
Smith, Demis E			Los Angeles
Smith, Wilbur Francis	. History.		Pasadena
Smith, Winifred Warner	. English.	26	Ontario
Snyder, Stella May		35	So. Pasadena
Spaeth, Reuben Louis			
Spear, William Howard	.M. Eng	65	Los Angeles
Speicher, Ernest Edwin			
Speicher, Florence Catherine			
Speicher, M. Maude			
Squires, Alma Markella			
Standlee, Lela Mae		9	Downey
Steffy, Eva Pearl			
Steller, Guy Earl		. 34	Los Angeles
Stephens, Vida Winslow	Pol. Sci.	96	Los Angeles
Stone, Ruby Cornelia			
Stookey, Adele			
Suman, John R			
Swain, Alma			
Sweeley, Frank Merriman			
Taft, A. Z	Soc	45	Hollywood
Tagg, Harriet Grace	German	18	San Bernardino
Tajima, Kengo			
Tamotsu, Kono	Soc	2	Los Angeles
Γaylor, Alice Blanche	Latin	15	Compton

Taylor, Robert John	Major Phil	Hours	Home Address
Teskey, Myrtle Eugenie			
Thompson, Edd G			
Thompson, May Aldyth			
Thompson, William Ben			
Thornton, Corliss Russell		13	La Mirada
A. B. University of			
Thornton, Ethel, W			
Thornton, Virgel Orwyn			
Tofte, George Everhart			
Traynor, Wilfred			
Trotter, Harry Ebert			
Tucker, Myrtle Marguerite			
Tupman, Alice Kate			
Twining, Mrs. Jennie M			
A. B. University of			
Uber, Edna Radcliffe	.Zoology	. 48	Los Angeles
Unruh, Otto Adolph			
Vail, Grace Elizabeth			
Vertrees, May			
Vinsel, Edna Jessie			
Waddell, Gladys Margaret			
Waggoner, Waverly Phares			
Wall, Arnold Edward			
Wallace, Kenneth Clark			
Warner, Willis Huxley		. 48Hur	tington Beach
Weir, Edith May		. 8	Los Angeles
Wellborn, Mildred	English	. 16	Long Beach
Wenk, Elizabeth		. 11	Los Angeles
Werber, Albert William	.C. Eng	. 11	Los Angeles
Werner, Gustav Adolph	History	. 13	Los Angeles
West, Howard Frank	. Econ	. 42	Los Angeles
Wharf, Bess Willard	.Latin	. 45	Olney, Ill.
Wheat, George Jenner		. 18	Los Angeles
White, Elizabeth Frances			Syracuse, N. Y.
White, George Washington	. Econ		Los Angeles
Wickham, Florence Mildred			
Wier, Clarence Dean			
Wiley, Lena Ellen	. History	. 28	Downey

Wilkinson, Roy Albert	14Los Angeles
Willett, Grace AliceGreek	77Los Angeles
Williams, Harry K	
Williams, Helen Augusta English	Los Angeles
Wilson, Bernice Celia	5 Soldier's Home
Wilson, Irene	
Wilson, Norris Remington	
Wilson, Weston Stephens	
Winstanley, Ella Marguerite	
Wirsching, Carl BernardinoC. Eng	
Wood, Laura MaeMath	
Wrisley, Pearl Hayden	
Wyatt, Julia Blanche	
Yerge, Clyde Scott	
Yoch, Agnes Cecilia	
Zander, Lucille ElaineGerman	
Ziegler, Ethel Grace	
Diegiei, Editel Glace	25 Redondo Deach

# THE PREPARATORY SCHOOL.

First Year.

Adams, Winola Bargman, Ted Harry Bartlett, Gordon Jack Beamer, Josepha Helen Bell, Ruth Black, Emily Boggs, Ina Viola Botiller, Madeline Brite, Bertha Brodbeck, Mary Brown, Myrtle Francis Brown, Nina Monica Bryant, Earsy Patrea Bryant, Effie Sufieur Bryant, Myrtle Burch, Marguerite Caldwell, William Chan, Edward Spencer Chamberlain, Josie Louise

Chamlee, Archie Ragland Clark, Clifford Clark, Loren Tompkins Coller, Clara Jane Crabill, Hazel Dell Creyhton, Thomas Neal del Valle, Lucretia Louise Flory, Earl Lester Fowler, Hazel Marjorie Frazier, Paul Aldridge Frazier, Roland Hilliard Gaynor, Alta Elizabeth Gibson, Harry Gilfillan, Gould Gillies, Hyslop Sinclair Greenwood, Laura Knapp Griffin, Herschel Raymond Hatch, Clara Haupt, William F.

Hine, Helen Beall Howe, Mary Ellen Howe, Marion Sprague Humphrey, Frances Lucille Huston, Robert C. Inwood, Alfreda Gertrude Joslin, Marian Laird, Ridgley Powers Lee, Andrew Baruch LeFerre, Pearl Barnes Lewis, Mamie Elizabeth Locke, Charles Edward Jr. Louden, Arthur James Lovell, Roy Lovett, Mame Lewis Lowe, Henry Low, Raymond C. McWhorter, Helen Emma McWhorter, Lela Margaret Mead, Hazel Helen Meeker, Leroy Ellsworth Miller, Edward Edwards Miller, James Raymond Moles, Hazel Letitia Morrill, Lee Moses, Leigh Myers, Ethel Augusta

Obear, William Frank Parker, Ernest Theodore Parrish, Emma Lorene Pettyjohn, Edythe Mae Reed. Leroy Reiche, Clarence W. Reily, Ralph Gamble Scovel, Edith Shartle, Hazel Artha Shepard, Freda May Shepard, Helen Bess Snowden, Mildred Emma Sterry, Philip H. Stevenson, Irving Landor Stivers, Virginia Irene Strathearn, Isabella McKinley Swarts, Lewis Earl Thompson, Mrs. Josie Gertrude Van Vranken, Arthur E. Vogel, Bert F. Whitmeyer, John Lawrence Willcox, Vivian Elma Willoughby, Phebe Sue Wintrode, Henry Jacob Wright, Gilbert Oliver Wright, Todd Foster Yaw, Frances Myrtle

## Second Year.

Anderson, Susie Elizabeth
Baillie, Hugh
Bartholomeu, Charles Fechter
Becanon, Thomas Brenton
Beckett, Wilbur Archer
Bovard, Gladys Freeman
Chamberlin, Joie Louise
Chan, Katherine
Chapman, Inez Pauline
Chrysler, Everell Nelson
Chung, Margaret Jessie

Clark, Edna Georgia
Collison, Alice Margaret\*
Coomber, Doris
Cunningham, Frederic Henry
Dalin, Carl Oscar
Davidson, Harold Victor
Dyer, Adrienne Emestine
Earl, Carl Everette
Elliott, Verne
Ellis, Francis Duffy
Engbrecht, John J.

Flick, Gertrude Lillian Foster, Emory Alfred Fowler, Blanche Helen Freeze, Lloyd Shurly Gibson, Bernice Edna Girdlestone, May Hagan, Evert Leo Knoles, Stella Ellen Law, William Russell Lee. Mary Ellen Locke, Lydia Margaret Lorentzen, Paul Ludwigs, John Richard Martin, Charl Eben Martin, Eugene William McMahon, James Vincent Meserve, Dorothy Annette Miller, Lucille Marguerite Moody, Harold Foster

Murdock, George Vencent Namkoong, David Yum Obear, Mary Katharine O'Neil, Mary Phila Parmelee, Lester Vernon Richards, John Lowrie Schader, Carl J. Smith, Bernice Belinda Snowden, Earle Forest Stevenson, Margaret Garrard Taylor, Lawrence Paul Thorne, Elsie May Tulles, Irma Aleen Tuttle, Rollin Simpson Wallace, Donald Joseph Watson, Homer William Werber, Paul Carl Wyatt, Charles Merrill Wyatt, Jane Dillon

## Third Year.

Avers, Lucile Jane Avers, Loren William Bennett, Grace T. Bernays, Anna Louise Biggin, Helen Mabel Bomhoff, Grace Evelyn Bowers, Alice Teresa Brown, Laura Elizabeth Brown, Perry H. Buffington, Lilian Gertrude Bunker, Frank Chambers, Jennie Louise Chamlee, Rose May Cechin, Rose Christina Fisher, Ruth Lula Hall, Charles Walter Henderson, Carl Rankin Holloway, Joseph David Jegers, Hamilton Moore

Jolley, Park Bohman Jones, Beatrice Lorena Jones, Frances Kardell, Pearl Knoch, Alice Cornwall Last. Stewart Menzies Lorentzen, Samuel Ray\* Lovell, Alta Josephine Malan, Martha Angeline Mann, Ernest Lee Michod, Rose Olive Mott, Albert De Witt Opp, Fred Walter Patton, Stanley Peck, Claude Elwood Powell, Walter Emit Shaw, Myra Mary Stabler, Dwight Wilbur \*Deceased.

Sowden, Nellie Margaret Vail, Ella Myrtle Van Aken, Gertrude Elizabeth Vermilion, David Ward, Irtis Lee Ward, Robert Winnie Winston, Jane Chandler Zatvornitsky, Valenteene A.

## Fourth Year.

Allen, Lawrence Winfield Amis, Anna Joyce Beane, Lenore Salisbury Beeson, Harold Clement Buffington, Olive Lay Burke, Walter E. Chamley, Otto David Couch, Wells Tyler Cynn, Paul Ponghui Dow, Louise Campbell Duignan, Katherine Fern Eckles, Leon LeRoy Fiorini, Francis German, Nita Bird Gilson, Lewis Edward Glass, Lois Belle Gould, Jesse Amasa Hammond, Emma Evelyn Healy, Bernice Hogan, Romaine Hummel, Edward John Hunter, Fanny Hunter, Graham Burgess Huntsberger, John Paul Inwood, Grace Agnes

Jessup, Mary Catharine Longshore, Milton Mahlon Ludwigs, Rowena Margaret Malan, William Edward McQuigg, Harry Martin Miller, Pearl G. Neiswender, Leland William Oertly, Bertha Elise Prosser, James Don Reiche, Charles Ferdinand Riechers, Bertha Luise Rocho, Victor Luman Rogers, Earl Lerov Sargent, Fred Walter Shaw, George Hamlin Smith, Eva Mae Taggart, Elise Tan, Ah Lok Thorne, Ina Gertrude Thorne, Mildred Eliza Walters, Hazel Belle Ward, Helen Josephine Weaver, Charles Raymond Young, Jessie St. Claire

## SUMMER SCHOOL 1908.

Anderson, Frank Edward
Anderson, Rembert Coddington
Aspland, Marion G.
Ballard, John Hudson
Banks, Elizabeth
Barnhart, Percy Spencer
Beckett, Wilbur

Beringer, Virginia Ida Berryman, John R. Blunck, Irma Blythe, Minor Z. Boehucke, Frieda C. Boller, Gordon Bovard, Gladys Freeman Bowers, Alice T. Bowing, Lynden Flash Brady. De Witt J. Brown, Edgar Kapp Buffington, Chas, Stewart Chamberlain, Henry Chamley, Otto D. Charles, Helen Chelgrene, Silvia Elisa Dora Clay, Jennie C. Colestock, Harry Ludwig Coomber, Doris Covell, Florence May Cushman, Clara E. Cynn, Paul P. Daley, Clarence L. Dannecker, Lois Dingnan, Kittie Dorfmeier, Irene Dow, Louise C. Ensley, Oliver P. Ferguson, Cassie L. Fiorini, Francis Fitch, Frank B. Fletcher, Katheryn Flinn, Homer John Foster, Emory Alfred Franks, Almetta Faye Frost, William Joseph Gill, Ralph Gilson, Lewis Edward Girdlestone, May Gleiss, Frank J. Gleiss, Irene Goodenow, Harold W. Grunwell, Mabel Hampton, Jack E. Hanlot, Leonie M. Hansen, Lulu Lindley

Hardy, Frank Ray Harris, William L. Harter, Mary Healey, Bernice Helm, Elisabeth Hepner, Alice Holmes, Ruth R. Holt, Albert C. Hubbard, Carson B. Hummel, Edward John Hunter, Graham B. Hunter, Katherine Hemner, Huston Jack, Norman M. Jessup, Walter E. Johnson, Nicolina Johnson, Beatrice Lorena Jones, Ida Isabelle Kellog, Eiffel Kimmell, Ernst W. Knipe, Bertha McE. Koebig, Walter C. Landsetle, Lillian Leaming, Lucy E. Levy, Sadie Ethel Lowman, Sarah Ione Macleish, Gordon Grant McClelland, Ora Effie McClurkin, Arthur A. Mee, Thomas Henry Miller, Lucille Marguerite Mitchell, Frances Murray, Hamilton Myrick, Lydia Namkoong, David Yum Newberry, Claire Squires Noble, Dora A. Norcutt, James Edward Oakley, Elizabeth Mary

Oakley, Mary Louise Obear, Katharine Parlin, Zula Pillsbury, Bertha Lydia Prince, Claude Raymond Purcell, Ruth Radford, Douglas R. Rankin, George F. Reed, Leslie J. Rhodes, Emily D. Rich, Willis A. Rogers, Earl Levoy Romig, Edith May Samuels, Addie J. Schweller, Jacob D. Seagrave, Ina Speicher, Florence C. Stivers, Virginia Stookey, Adell Stoul, Minnie Lee Summerbays, Elizabeth

Tan, Ah Lok Tarbell, Grace W. Thomas, Alma Marguerite Thompson, Fanny Thorne, Emily Agnes Thorne, Mary Marguerite Traphagen, Dorothy Turner, Lena Loraine Tuttle, Rollin S. Vermillion, David Linton Walbridge, Lester S. Wallace, Donald Joseph Ward, Helen Josephine Wells, Eloise Gertrude Wenk, Elizabeth White, Edith May Willet, Hugh Carey Wilson, Clair Wilson, Norris R. Ziehlke, Joseph

# THE COLLEGE OF DENTISRY. Freshman Year.

Algeo, Walter S. Bailey, H. P. Barney, Chas. A. Bundy, Arthur R. Chang, Dai Yen Chapman, Alfred B. Codling, Horace G. Crawford, J. F. Crew, Leila Craven, E. A. Day, Chester A. Dunlap, John T. Fugasawa, Harry Glassell, H. P. Green, Fred C. Henderson, Max M.

Iwata, Kaichiro Jackman, G. Floyd Kirkpatrick, H. D. Maclin, John McCoy, John R. McLean, G. W. Mitchell, F. W. Moore, Leon D. Moore, G. W. Nance, Ed. F. Pertson, Louis A. Puckett, C. W. Roberts, Earl K. Sargent, Ray Schildwater, Harry Snipes, Thos. W.

Smale, John Smith, Hyrum G. Smith, Jackson

Ashmore, Grant
Bergstrom, Hyrum
Copp, Jos. P.
Fukasawa, Harry J.
Goode, W. A.
Green, M. T.

Hendrickson, W. M.

Abbott, Clyde A.

\*Aschenbrenner, C. F.
Barr, John, B. S.
Ballagh, H. A.
Bolstead, Fred P.
Chapin, Roy H.
Coffield, G. A.
Daniels, Earl A.
Davis, Hugh M.
Festenthal, Louis
Foster, Douglas E.
Hatcher, L. Edna
\*Howard, Jas. L.
Inverarity, Frank
Johnson, Alvin

Smithers, John E. Sunderland, Egbert Stover, W. T.

## Junior Year.

Jarvis, Hollis A.
Maile, John V.
O'Connor, William S.
Ross, F. A.
Stockman, D. D.
Turrentine, D. E.
White, Roy M.

#### Senior Year.

Loughan, J. T.
Lynn, Thomas

\*Misenhimer, L. L.
Miyata, Yiyiro, M. D.
Numbers, Ava B. H.
Oka, N.
Petterson, J. P.
Ramirez, X. J.
Sheafer, John G.
Stewart, J. H.
Terao, K.
Wessell, Geo. W.
Yoshida, Y. K.

## THE COLLEGE OF LAW. Freshman.

Adams, Charles Forrest, Sp. Arnoldy, Fred Nicholas, Sp. Ayers, Arthur Carlton Bowser, Vincent Eril, Sp. Bovee, Estelle Best. Oliver Warren Baldwin, Louis Judson Backus, Knowles Earle Blumberg, David

Childers, Charles Leroy
Culver, Richard Joseph
Cass, Phillip, Sp.
Chamberlin, Harry Audry
Cole, Henry Edmond
Coleman, William
Clapp, Reginald Wirt
Converse, Norris May
Curtin, George Rogers

<sup>\*</sup>Transferred.

Duggan, Frank Alphonse Decius, John Harmon Donnell, Horace Downs, Wilber Frank Doherty, Frank Patrick Durbin, William Resse Dawley, Monroe Homer Edmiston, Joseph Lee Ellis, Thomas Earl Edmonds, Douglas Emme, Urban Francis Fujii, Sei Foster, Abram H. Gardner, Chauncey Edgar Griffith, Andrew Green, Arthur William Gault, Donald Gewertz, Jennie Hall, S. C. Hitchcock, Earl Edmund Hasking, Charles William Haggart, Alexander McKenzie Himrod, William Brown Hart, Winslow C. Hart, Abram Caruthers Julian, William Bailev James, Ralph Egbert Jarrott, James Smith Jones, Albert Atveo Jones, M. L. King, William Lincoln Keough, Joseph Keys, Mark Butler Kelley, William Johnston, Walter Leitch, Alexander Young Lowe, Laura Alta Lobdell, J. Karl Land, Jesse Mearl

Lawlor, Reed Morris Lee, Kenyon Ferrar Meads, J. M. Murray, Hamilton Musgrove, John Joseph Moeur, John Hubbard Multhauf, Christopher Joseph Miles, William, Jr. Manion, Francis LeRoy McCollough, Vernon Clare McGregor, Charles McDonald, Donald H. McCreary, Charles McCreary, Alexander Nolan, Edward James Nourse, Paul Naugle, Harry David Norton, R. H. Potter, Charles Guy Peyton, Robert Clark, Sp. Peck, Earl C., Sp. Parker, Elizabeth Patten, Sarah Elizabeth Phelps, John Rosecrans, Leo Marmaduke Ridson, Frederick Ray Russell, Hartwell Cook Roberts, David Berwyn Rivera, Robert Parfirio Robinson, Oliver Raynor Wade Rich, Lysle S. Rice, William Justus Stanwood, Frederick Shafer, Jesse Reno Satterwhite, Walter Shelley, Walter Francis John Showers, Victor Paul Salzman, Maurice Snyder, William Cloyd

Stevens, Walter Hayes
Thompson, William Boyd
Tinklepaugh, Roy Delerne
Tritt, W. W.
Thompson, Roland
Tolhurst, L. H.
Wisdom, Earl Leslie

Woolwine, Clare Wharton Wenzlaff, Edgar Gustave Whitworth, Walter White, Thomas Patrick Yager, Thomas Charles Yager, Louis Jesse

#### Juniors.

Lyman, Edward Dean Arnold, Medford Roop Lloyd, Norman Angus Atkins, Charles Louis Archer, Allan Thurman Montgomery, Plumber Barman, Fred, Jr. Morton, Claude Bernard Bagley, Charles Leland Martindale, Emory DeForest Beaman, Glenn Horace Mather, Wiley Wells Baird, William Smyllie McNamee, Leo Aloysius Biby, John Edward McCoy, Lon Stephen Brewer, Cecil LaVerne McNeely, William Thayer Brown, Cornelius Cole Norman, Lucretia O'hannesian, Aram Bartlett, Alfred Lewis Cooper, Morris E. Owen, Earl Wilford Clewett, Howard Edmond Petterson, Fred Davis, Charles Sidney Pearson, George M. Peck, Earl C., Sp. Dieterich, Edward Phillips, James Oliver Dillon, James de Koven Dunham, Frank Clark Poole, William Jason Phillips, Thomas W. Eckman, Arthur Wilson Farman, Charles Hugo Pardue, Samuel Wollens Folsom, Niles C. Randall, Lewis Bradley Finkenstein, M. J. Richardson, Frank Hull Gillellen, Warren, Jr. Richardson, George S. Goldflam, Archibald Samuel Sorenson, Andrew Wesley Hopkins, Charles Schlegel, John Hitchcock, Alonzo Daffin Stanton, Louis Bronson Hayek, Desidinos Francis Siemon, Alfred Travis, W. T. Howard, James Henry Thompson, Raymond George Hopkins, Melville Perry Heffelfinger, Raymond Wiley Taylor, Wendell Barker Hall, Chapin Weber, A. A. Winnett, Earl Livesley Kidder, Albert Augustus

Watson, Van Hodgen Warring, Floyd Sylvan Wall, Arnold Edward Williams, Charles Floyd Wilde, William Carl Wheelock, Ray Hoover, Sp.

## Seniors.

Allen, Edward Horace Alex, Anna Randal Boland, William Patrick Brown, Henry Byrer, Clarence W. Bower, Leland Sanborn Bloodgood, Freeman Henry Bauer, Harry John Davison, Walter Charles Fellows, Frederick William Foltz, Clara Shortridge Glickman, Louis Giesler, Harold Lee Goode, Ray Edgar Graham, Frank L. Hoyt, Frank Crosby Hult, James, Sp. Hill, Alfred Julius Hunsaker, Daniel McFarland Henderson, Harvey Green

Irsfeld, James B. Jones, Charles McMeen Lacey, Courtney Lewis, Irvin Charles Lewis, Harry L. Monteleone, Stephen Morris, Isador Morgan, Vincent Newmire, Earl Stewart O'Connor, John Henry O'hannesian, J. George Pettit, Henry Gordon Parrot, Kent Kane Richardson, John Lawrence Selph, Ewald Smith, Earle Henry Wall, William Dillard Williams, C. Prudence Williams, Charles Ezra

## Post Graduates.

Andrews, Willedd Baruch, Bertha Hirsch, Sp. Barrett, Elliott Heywood Craig, Gavin William Crandall, E. E. Campbell, Kemper Bramwell Freeman, William A. Haas, John B. Lickley, Ernest Jameson McDowell, Elmer Root Veitch, Arthur L.

## COLLEGE OF MUSIC.

Adams, Inez Amis, Joyce Ayers, Mrs. Baker, Vesta Ball, Adelaide Barber, Esther Barnett, Rena Bell, Geneva Bell, Edna Bell, Ruth Black, Mary Black, Lena Blinn, Bernice Booty. Blanche Bowman, Esther Brown, Stella Butler, Mattie Butterfield, Priscilla Carlson, Hilma Carpenter, Thankful Carson, Gladys Carson. Valerie Cechin, Rose Chamberlin, Joie Cleaveland, Dot. Clemons, Eleanor Clough, Arthur Consigny, Venita Cowan, Gilbert Coyne, Ethel Curtis, Clara Damer, Mabel Claire Davidson, Esther Davis, Mary DePeene, Mortonia Dinsmore, Lura Dinsmore, Marguerita Dupuy, Helen Elliott, Verne Ellis, Leila Etz, Helen Ferrahian, Mrs. Forseman, Earl Fortney, Dora Foster, Ella Fredenburg, Pauline Garner, Vida Green, Harriet

Hart, Addie

Hastings, Ray Haydock, Fern Hicks, May Hidden, Bertha Hill, Joseph Holmes, Mrs. Hattie Howe, Marian Hutchinson, Mildred Johnson, Mrs. J. H. Jones, Violet Jones, Beatrice Joslin, Marion Keenev. Louise Keeney, Cornelia King, Elsie Kittle, Walter Knesel, Florence Kuster, Mrs. E. G. Lacey, Reta Lincoln, Bessie Longwell, Margaret Livingston, Lillian Ludwigs, Rowena Ludwigs, John McHugh, Mona McDonnell, Leola Malan, Martha Mallory, Frances Mann, Marie Martens, Ruth Mulock, Kate Munson, Pearl Myers, Ethel Nave, Junia Nelson, Maude Nelson, Florence Newlin, Pansy Nielson, Linda Overton, Mae

Palmer, Bertha
Park, Harry
Parks, Dora
Parrish, Emma
Pezzoni, Millie
Poggie, Ruby
Poindexter, Mabel
Reed, Dollie
Reeves, Lulu
Raberts, Mrs. Flore

Roberts, Mrs. Florence Sargent Fred

Sargent, Fred Sass, Emma Sevier, Carrie Shaw, Myra

Simpson, Mrs. Eleanor

Smart, Dorothy Smith, Leonard Smith, Rachel Snedocor, Ada

Ball, Adelaide

Stalker, Elsie Stiles, Vera Stone, Ruby Stump, Blanche

Sutton, Mrs. Josephine

Thorne, Mary Timmons, Ethel Tremain, Ethel

Van Aken, Gertrude Van Buskirk, Gladys

Vance, Wilber Vignes, Edwine

Webb, Evah

White, Mrs. Estelle Wickham, Florence Williams, Emma Wilson, Irene Wilson, Blossom

# COLLEGE OF ORATORY. Private.

Butters, Olive Chamlee, Rose Dell, Hazel Dow, Louise Elliston, Annamay Gibson, Harry Gray, Cecelia Green, Florence Hanna, Tacie Hensel, Gretchen Howell, Jessica Huston, Luther James, Everett Jones, Beatrice Moles, Hazel Moses, Marion McConnell, Hazel

McComas, Ethel Overton, Mae Pallette, Minnie Pressman, Lillian Ritchey, Mattie Romig, Edith, Rowley, Nathan Sargent, Fred W. Smith, Eva Mae Stephens, Vida W. Stivers, Virginia Stone, Ruby Stokes, Beatrice Stokes, Annie Stump, Blanche Swain, Alma Taylor, Robert J. Tuttle, Rollin

Wessell, Louis White, Una White, Mrs. Z. L.

Ashcraft, Norman Bach, W. L. Backus, M.J. Bagley, C. L. Ball, Adelaide Barman, Fred Boller, Gordon Bennett, Grace Bryan, Gloster Butters, Olive Cass, Chas. Chamlee, Rose Coleman, Wm. Chamberlain, H. A. Dawley, M. H. Dell. Hazel Dow, Louise Edwards, Frank Ellingson, Jennie Engbrecht. J. J. Engbrecht, Mrs. J. J. Gault, Donald Goodhue, Helen Grav, Cecelia Green, Florence Griffith, J. H. Hall, A. L. Hensel, Gretchen Henderson Howell, Jessica Huston, Luther James, Everett Johnson, Walter Kardell, Pearl Leitch, Walter

Longshore, Milton

Wood, Laura Zumwalt, Goldie

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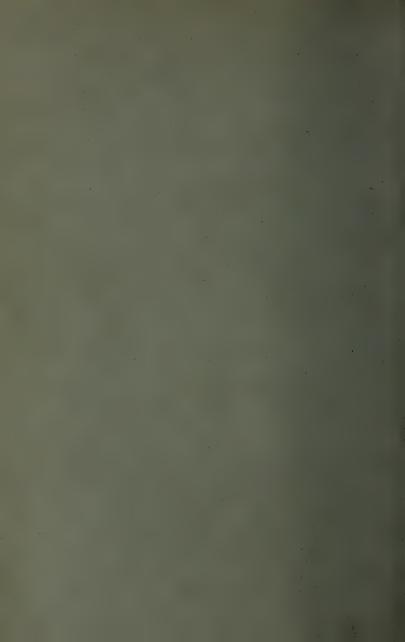
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VOLUME V

Number 1



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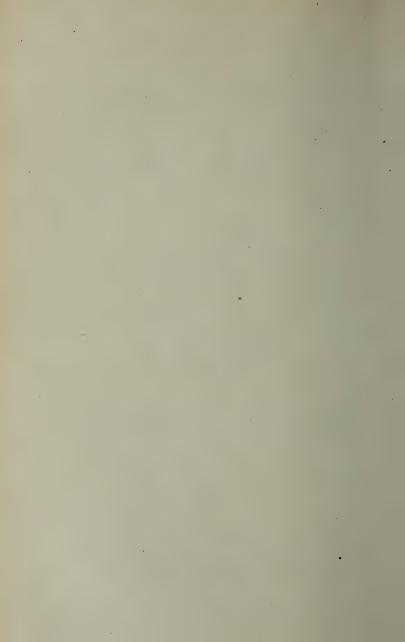
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LOS ANGELES, CALIFORNIA

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# THE UNIVERSITY

The University of Southern California was founded in 1879, and was formally opened for students in October, 1880. It includes the following colleges, each of which has a distinct faculty of instruction:

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The President has charge of the educational administration of the University and is chairman of the University Council. The principal administrative officers, other than the President, are the Deans, who have immediate charge of the work of the several faculties.

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- James Harmon Hoose, A.M., Ph.D. Logic.

Secretary to the Dean.

# COLLEGE OF MUSIC

Walter Fisher Skeele, A.B., Dean Professor of Piano and Pipe On	gan. 215 Thorne Şt.
Charles E. Pemberton, Secretary  Professor of Violin, Harmony Musical Theory.	678 S. Burlington, Counterpoint, History and
Mrs. Norma Rockhold Robbins Voice Culture.	911 Lomita, Glendale, Cal.
Mrs. S. J. Brimhall	417 W. Avenue 52
Carrie A. Trowbridge	1045 W. 35th Place
Lillian M. Arnett	947 W. 34th St.
Madge Patton	1210 Valencia Șt.
Herr Oscar B. SeilingViolin.	Blanchard Hall
William H. Mead	
C. S. Delano	2610 W. 8th St.
Pearl Alice Macloskey	1017 W. 36th St.

#### COLLEGE OF ORATORY

- Professor of Oratory and Speaking Voice.
- Professor of Interpretation, Forensics, Physical Training.
- Professor of Dramatic Art, Shakespeare.
- Assistant Professor of Dramatic Art and Expression,
- James Main Dixon, A.M., L.H.D., F.R.S.E.........450 Cervera St. Professor of English Language and Literature.
- Dean Cromwell 1045 S. Boyle Ave.

  Director of Physical Education for Men.
- Odell Shepard, A.M....

## COLLEGE OF FINE ARTS

- William L. Judson, Dean.
- Arley G. Tottenham, Drawing.
- Elizabeth Waggoner, Metal
- Nell Danely Brooker, Design.
- Martha Schmierer, Mythology.
- Art History.

Emma Bridges,
Sacred History.

Bessie Edwards,
Anatomy.

## COLLEGE OF PHARMACY

\*Walter T. Taylor, Ph.G., Dean and Professor of Pharmacy.

Charles W. Hill, Ph.G.,

Professor of Materia Medica and Pharmacognosy.

Laird J. Stabler, M.S., Ph.C.,

Professor of Chemistry and Toxicology.

Albert B. Ulrey, A.M.,

Professor of Physiology and Botany.

Arthur R. Maas, Ph.C.,

Associate Professor of Pharmacy.

Ethel W. Graves, A.M.,

Assistant Professor of Inorganic Chemistry.

Andrew C. Life, A.M.,

Assistant Professor of Microscopy.

Howard A. Peairs, A.B., Lecturer on Pharmacal Jurisprudence.

Erwin H. Miller, B.S.,

Lecturer on Food and Drug Adulteration.

L. Schiff,
Lecturer on Commercial Pharmacy.

C. L. Lowman, M.D., Lecturer on First Aid to the Injured.

Dean Cromwell,

Director of Physical Education,

<sup>\*</sup>Absent on Leave of Absence.

### COLLEGE OF THEOLOGY

- Ezra A. Healy, A.M., D.D.,

  Dean. Historical and Systematic Theology.
- George W. Coultas, A.B., S.T.B.,

  Historical Theology and Comparative Religions.
- James Blackledge, A.M.,

  Hebrew Language and Literature.
- Matt S. Hughes, D.D., LL.D.,

  Pastoral Theology and Homilitics.
- John G. Hill, A.M., S.T.B., Exegesis and Hermaneutics.
- Festus E. Owen, A.M.,

  New Testament Greek.
- James Main Dixon, A.M., L.H.D., F.R.S.E. Early Saxon Gospels.
- Rockwell D. Hunt, A.M., Ph.D., Sociology.
- George B. Smythe, D.D., Christian Missions,

# COLLEGE OF LIBERAL ARTS

# **CALENDAR**

1910.

Sept. Sept. Sept.	14		Entrance Examinations and Registration for the First Semester.
Sept.	16	Friday	Instruction begins and first assembly of First Semester held.
Nov. Nov.		Thursday Friday	.Thanksgiving Vacation.
Dec.	19	Monday	Christmas Vacation begins.
			1911.
Jan.	1	Sunday	Christmas Vacation ends.
Jan.	26.	Thursday	.Day of Prayer for Colleges.
Jan. Feb.	30	Monday Friday	Mid-year Examinations.
Feb.	3	Friday	First Semester ends.
Feb. Feb. Feb.	7 8 9	Tuesday Wednesday Thursday	Entrance Examinations and Registration for the Second Semester.
Feb.	10		Instruction begins and first Assembly of Second Semester held.
Feb.	22	Wednesday	Washington's Birthday.
Mar. April		Monday Sunday	Spring Vacation.
June June		Wednesday Tuesday	Final Examinations.
June	11	Sunday	Baccalaureate Sunday.
June	15	Thursday	Commencement.
June	15	Thursday	Alumni Reunion and Banquet.
June		July	.Six Weeks' Summer Session.

## ADMISSION REQUIREMENTS

#### ADMISSION TO THE FRESHMAN CLASS.

1.—Admission by Certificate.

Candidates for admission to the freshman class must be at least sixteen years of age and must present evidence of good moral character. They must also give, either by certificate or by examination, evidence of preparation in 15 units of preparatory subjects selected from the general list of subjects described on the following pages. These 15 units must be made up of the following:

English,	2 units*
A Foreign Language, . •	2
Science	
Algebra and Plane Geometry,	2
U. S. History and Civics,	1
Electives,	7

The electives are determined entirely by the requirements for admission to the college course which the student desires to pursue.

For admission to the Engineering Course the 15 units must include the following:

English,								2	units
A Modern	Language	e, ·						2	
Chemistry,									
Physics,									
Elementary									
Advanced .	Algebra,					.`		1	
Plane Geor	netry,							1	
Trigonomet									
U. S. Histo	ry and C	livic	s,					1	
Freehand I									
Mechanical	Drawing							1	
Electives,								2	

<sup>\*</sup>The term "unit" is used to denote a preparatory subject studied through one school year with five class exercises (or the equivalent) per week.

Candidates who have completed a regular course in the Preparatory School of this University, or in an accredited high school, may be admitted to the College of Liberal Arts without examination, on presenting a certificate signed by the principal. Unconditional credit will be given only for entrance subjects in which the candidate is specifically recommended. Recommendations will be accepted from any school accredited by this University, Leland Stanford Junior University, or the University of California. The faculty reserves the right, however, to require an examination upon any or all of the studies set for entrance, whenever there is doubt that the preparation has been sufficient. To insure entrance without examination credentials should be presented as early as possible before registration.

## 2.-Admission by Examination.

The regular examination for admission will begin Tuesday, September 13, 1910, when candidates will be examined in all the required admission subjects not covered by certificate from an accredited school.

#### 3.—Conditional Admission.

Candidates may be conditionally admitted to the freshman class, if they are not deficient in more than twenty semester hours (two units) of preparatory work, but each case is referred to a faculty committee and only by vote of this committee can such admission be gained. They must, however, remove all such conditions before they may obtain junior standing.

## PREPARATORY SUBJECTS.

The following items will serve to indicate both the kind and the amount of work expected in the different preparatory subjects accepted for admission, as well as the units of credit allowed for the same.

1. English. A short essay on an assigned subject will be called for, with the purpose of testing accuracy in spelling, punctuation, division into paragraphs, and power of expression in clear and correct English.

The candidate will also be required to give evidence of a

thorough study of elementary rhetoric and classic myths; and will be tested as to his knowledge of the subject matter, form and structure of the following works (or their equivalent):

Scott's Lay of the Last Minstrel and Ivanhoe; Hawthorne's Tales of the White Hills; Selections from Irving's Sketchbook; Lowell's Vision of Sir Launfal; De Coverly Papers; Coleridge's Ancient Mariner; George Eliot's Silas Marner; Carlyle's Essay on Burns; Macaulay's Essay on Warren Hastings; Tennyson's Idylls of the King; Shakespeare's Merchant of Venice and Julius Caesar. (2 units.)

2. English Literature. With outline history of its development. Chaucer's Prolog; Gray's Elegy; Wordsworth's Tintern Abbey, and Odes on Intimations of Immortality and Duty; Milton's Minor Poems; Shelley's Odes To Night and To a Skylark; Keats' Ode to a Nightingale; Browning's Epilogue to Assolando and Rabbi Ben Ezra; Burke's Conciliation; Webster-Hayne Debate; Shakespeare's Midsummer-Night's Dream and Macbeth. (1 unit.)

[Note: When a candidate shall offer, in addition to the above, an equivalent amount of other classics such as may be acceptable to the department of English, another unit will be granted.]

- 3. Elementary Algebra. This should include the following subjects: The four fundamental operations with emphasis placed on the type-forms in multiplication and division, factoring, highest common factor, and lowest common multiple, fractions and fractional equations, simultaneous equations of the first degree, the binomial theorem for a positive integral exponent, evolution, theory of exponents, radicals, quadratic equations, and the solution of problems involving the various classes of equations. Emphasis should be placed on factoring and on the solutions of equations. (1 unit.)
- 4. Advanced Algebra. This should include the following subjects: Mathematical induction; the proof and the use of the remainder and the factor theorems; the binomal theorem for a positive integral exponent; evolution, including the extraction of any root of algebraic polynomials, and also of arithmetic numbers; theory of exponents; complex numbers; radicals, and

irrational equations; theory of quadratic equations; simultaneous quadratics; inequalities; ratio, proportion and variation; arithmetic, geometric and harmonic series. Emphasis should be placed on the solution of equations by factoring, and on the demonstration of laws and principles. (1 unit.)

- 5. Plane Geometry. This includes the usual theorems and problems of elementary plane geometry. An important part of the work should be the solution of original exercises including problems in mensuration. (1 unit.)
- 6. Trigonometry and Solid Geometry. The development of the general formulae of elementary plane trigonometry; the theory of logarithms and the use of logarithmic tables; the numerical solution of plane triangles, and of simple problems in heights and distance. The fundamental propositions of solid geometry and especially those of spherical geometry. (1 unit.)
- 7. Chemistry. Laboratory and text-book work for one school year, such as outlined in Remsen's Introduction to the Study of Chemistry, or Newell's Experimental Chemistry. At least four hours per week throughout the year is required of actual laboratory practice in order to complete the amount of laboratory work desired. \*(1 unit.)
- 8. Physics. The equivalent of one year's work, including both laboratory and text-book work. Accurate notes of the laboratory work should be kept. Gage's Elements, or Carhart and Chute's High School Physics will serve to indicate the amount of text-book study required. (1 unit.)
- 9. Botany. A study in the laboratory and field of types of plant groups. Drawings and notes made directly from the speciments must be submitted as evidence of the character of the work done. A full year's work. (1 unit.)
- 10. Zoology. One year's work on the structure, relationship and habits of animals. Laboratory note-books with drawings will be required. (1 unit.)
- 11. Physiology. An equivalent of Martin's Human Body,
  —Shorter course. 1 unit.)

- 12. Physical Geography. The study of one of the leading text-books supplemented by at least forty exercises in individual laboratory work. (1 unit.)
- 13. Elementary Latin. For the requirements of Elementary Latin an accurate pronunciation is necessary, a thorough knowledge of regular forms and principles of syntax, a vocabulary of about fifteen hundred words, and the ability to translate easy prose at sight, and to write simple sentences. These attainments can be secured from the careful study of an elementary text-book and four books of Caesar, together with oral and written composition and occasional practice in sight translation. The examination in composition in 1910-1911 will be based on the second book of Caesar's Gallic War. (2 units.)
- 14. Advanced Latin. For the requirements of Advanced Latin the ability to translate at sight portions of Cicero's orations and Vergil's Aeneid is necessary, familiarity with the principles of the Latin hexameter and the ability to translate a passage of connected English based on Cicero. These attainments can be secured from the careful study of six of Cicero's orations and six books of Vergil's Aeneid, together with very thorough drill in oral and written composition. It is expected that a certified composition book will be presented for entrance credit. The examination in composition in 1910-1911 will be based on the oration Pro Archia. (2 units; without the composition, 1 unit.)
- 15. Elementary Greek. Grammar and Lessons; Anabasis, book I-III; prose composition. (2 units.)
- 16. Advanced Greek. Anabasis, book IV; Iliad, books I-III; prose composition; sight reading; review of the Grammar. (1 unit.)
- 17. German. A knowledge of the inflections of articles, nouns, adjectives, pronouns, weak verbs and usual strong verbs; also of the use of the modal auxiliaries, the common prepositions, the simpler uses of the subjunctive, and the order of words; the reading and translation of stories and plays, such as Storm's Immense and Benedix's Der Prozess; translation of easy English into German, translation at hearing and pronunciation. (2 units.)

- 18. French. A knowledge of the essentials of grammar, including the inflections of nouns, adjectives, pronouns, regular and common irregular verbs; the use of personal pronouns and the elementary rules of syntax; ability to pronounce accurately and to read smoothly; translation of modern stories and plays, such as About's Le Roi des Montagnes and Labiche and Martin's Le Voyage de M. Perrichon; translation at hearing and at sight; translation of easy English into French. (2 units.)
- 19. Spanish. Grammar, Garner, Monsanto or De Tornos; reading from Matzke's Spanish Readings, Knapp's Spanish Readings, Pepita Jiminez; translation of easy English into Spanish, and simple conversation in Spanish. Special importance attached to a knowledge of Spanish verbs. (2 units.)
- 20. English History. Coman and Kendall or an equivalent. (1 unit.)
  - 21. Grecian and Roman History. Myers, or an equivalent. (1 unit.)
- 22. Mediaeval and Modern History. Myers, or an equivalent. (1 unit.)
- 23. United States History and Civil Government. Channing, and Fisk, or an equivalent. (1 unit.)
- 24. Freehand Drawing. The study of light and shade and perspective by drawing and shading with pencil from geometric and simple life objects. (1/2 to 1 unit.)
- 25. Mechanical Drawing. The use of drawing instruments in line work, the construction of geometrical problems, and simple detail drawing. (½ to 1 unit.)

Note—In the case of students graduated from a recommended high school credit may be allowed for such subjects, not designated in this list, as are recommended by the principal and approved by the University faculty.

Candidates who offer subjects in Science will be required to present their note-books in the same.

#### ADMISSION TO ADVANCED STANDING.

Students from other institutions of recognized collegiate rank may be admitted to such standing and upon such terms as the Faculty may deem equitable, upon presentation of letters of honorable dismissal. Every such candidate is required to present a catalogue of the institution in which he has studied, with a full statement, duly certified, of the subjects he has completed, including subjects passed at entrance as well as those credited. The faculty reserves the right to determine, after a test of at least one semester, the amount of credit which a student may receive.

#### ADMISSION AS SPECIAL STUDENTS.

Persons of maturer age who desire to take up special work in one department, or in one subject with its related branches, may be admitted as special students, without becoming candidates for a degree; but they may become candidates by satisfying the entrance requirements for a regular course. Such students come under the same regulations as regular undergraduates, and forfeit their privileges by failure to maintain a good standing.

## MATRICULATION AND REGISTRATION.

On or before the appointed registration days, in September and February, each student must register at the Registrar's office, and must enter upon a study card the subjects desired for the semester.

The study card, properly filled out and signed by the major professor and the Registrar, must be filed in the office not later than one week after the last appointed registration day. Late study cards will be accepted only upon the payment of a special fee of one dollar. A student desiring to enter any class must present his study card to the instructor for enrollment

Students are urged to register on the appointed registration days. Absence from classes or laboratory are counted from the day on which instruction begins, and these absenses incur the penalties stated under Absence from Exercises.

In the choice of subjects, all work necessary to remove conditions must be provided for first; and required subjects must take precedence of elective subjects.

Credentials will be considered at any time of the year, but since in general candidates cannot be assured of admission to the University without examination, it is important that credentials be forwarded as early as possible. Blanks for admission may be obtained by application to the Registrar's office.

#### GRADUATION.

## The Degree of Bachelor of Arts.

The College of Liberal Arts offers as many courses from which the student may elect as there are departments in which a major is offered.

Each course the student may pursue is designed to give a liberal education and, except in the Engineering course, leads to the degree of Bachelor of Arts (A.B.).

The student must complete one hundred twenty semester hours of college work (exclusive of the requirement in Physical Education), which includes the required subjects, a major in one department, and a related minor.

A semester hour means one exercise a week throughout a semester. It is intended that each hour of credit shall represent, for the average student, one hour of recitation or lecture, and two hours of preparation or subsequent reading per week, or an equivalent amount of work in laboratory courses.

Fifteen hours per week of recitations or lectures, or their equivalent in laboratory work, constitute an average semester's work. Students may register for as few as thirteen or as many as eighteen hours by making application to the Registrar.

The end of the sophomore year marks a differentiation in the work of the undergraduate course. In the junior and senior years the aim is toward University work in the true sense.

# REQUIRED SUBJECTS.

In all the courses except in the Engineering Courses, in which the student is a candidate for the bachelor's degree, he must complete work as follows: English, Rhetoric I., one year, six hours.

Science, one year, eight hours. (The science may be Chem istry, Zoology, Physics or Botany.)

Philosophy, one year, six hours.

Foreign Language, two years, twelve hours. (The language may be Latin, Greek, German, French, Spanish or Italian.)

History or Economics, one year six hours.

Physical Education, four hours.

The Freshman year should be devoted to the completion of thirty hours of these required subjects.

In the Engineering Courses the work of the four years is required as outlined under Engineering Courses.

#### Major and Minor Subjects.

Each undergraduate student must select the work of some one department as his major subject, but the selection may be deferred until the second year. The requirements for major work, which range from a minimum of twenty-four to a maximum of thirty hours, are stated elsewhere under Courses of Instruction. An equivalent of ten hours' work must be taken in a related subject, known as the minor subject, and selected with the approval of the major professor.

Where a student who has already selected his major subject desires to change it, and is able to meet the requirements of the new major subject, the change can be made, if approved by the professor of the old and new major subjects.

#### Elective Subjects.

Except for the above required subjects, and the requirements of the major and minor subjects, the work required for graduation is elective; but the student will confer with the professor of the major subject, as well as with the President of the University, in selecting such subjects as bear some useful relation to the course he is pursuing.

# CLASSIFICATION OF STUDENTS.

Students who have no entrance conditions, and who have completed thirty semester-hours of the freshman year, are classed as sophomores.

Those who have completed sixty semester-hours are classed as juniors.

Those who have completed ninety semester-hours are classed as seniors.

Students who have completed one hundred twenty-four semester-hours, including all required work, and a major in one department with a related minor, are entitled to receive the degree of Bachelor of Arts.

#### ABSENCE FROM EXERCISES.

- 1. Excuse must be rendered for all absences from required exercises.
- 2. A student who is absent during a semester from more than one-tenth of the whole number of recitations or laboratory periods held in any subject shall be required to pass a special examination in that subject.
- 3. Where a student is absent from more than one-sixth of the whole number of recitation or laboratory periods, held during a semester in any subject, his registration in that subject is thereby cancelled. In case of such cancellation, however, if the student can show cause for his absence, and if his previous standing be such as to indicate that he can make up his loss and maintain a satisfactory grade of work in the subject, he may present his case to the Faculty and have his registration restored.

In applying this rule absence from the first or last recitation in a study, or consecutive absence in which either the first or last recitation is included, will be counted each as two absences.

4. Assembly exercises are held Monday, Tuesday, Thursday and Friday at 11:45. Attendance is required.

### EXAMINATIONS AND GRADES.

Regular examinations are held at the close of each semester in the studies that have been pursued in different classes. After the examination, the parent or guardian of every student receives from the office a report, giving the student's standing for the semester. The general character of the work of the students in their several subjects is indicated by one of six grades, ranging from grade A, denoting the highest excellence,

through B, C, D, E, in a descending scale of merit to F, which signifies failure to pass.

A student whose work in a subject is marked conditioned or incomplete is delinquent in that subject. Such delinquency must be made up, in such manner as the instructor may determine, before the close of the year next after that in which the delinquency occurs. If the delinquency be not thus made up, the student is required to take the subject again with a class before he may receive credit for the same. A grade F may be removed only by taking the subject in class again.

When a student has incurred a failure in a subject he may not register for more than thirteen hours of new work in the following semester.

#### OPTIONS IN THE PROFESSIONAL COLLEGES.

When seventy-two hours (including all required work) have been made in the College of Liberal Arts, a student wishing to enter upon his professional studies before graduation from the College of Liberal Arts, may take the studies of the first year in the Medical Department of the University, and may receive the degree of Bachelor of Arts upon the satisfactory completion of three years' work in the professional course. Students electing this course are supposed to have completed a course similar to course C. or D. in the Preparatory School of the University, that is, requiring Drawing, Chemistry and Physics. At least one year of Latin is also required. (Any of these subjects not offered for entrance should be taken the first year.)

The required subjects in the College of Liberal Arts are the same as those for the regular candidate for the degree A.B., except that Zoology should be the elected Science, and German, the elected Language (provided Latin has been offered for entrance.)

The Pre-Medical Course (including required subjects) is outlined as follows:

Freshman Year.

English, Rhetoric I., throughout the year, 3 hours. Science, Zoology, throughout the year, 4 hours.

Language, German (if Latin has been offered for entrance) throughout the year, 5 hours.

History or Economics, throughout the year, 3 hours.

Elective, throughout the year, 3 hours.

Total, 18 hours per semester.

Sophomore Year.

Philosophy, Psychology, throughout the year, 3 hours.

Language, German, throughout the year, 3 hours.

Elective (Biology, English and History specially recommended), throughout the year, 12 hours.

Total, 18 hours.

The regulations for the current year shall prevail concerning fees.

When 94 hours (including all prescribed work) have been made, and of these not less than 72 in the College of Liberal Arts, the student may take the studies of the first year of the College of Law, and may receive the degree of Bachelor of Arts upon the satisfactory completion of two years in the professional course.

# THE DEGREE OF BACHELOR OF SCIENCE IN THE ENGINEERING COURSES.

The degree of Bachelor of Science in Civil Engineering is conferred upon such candidates as may complete the four years' course in Civil Engineering.

The degree of Bachelor of Science in Electrical Engineering is conferred upon such candidates as may complete the four years' course in Electrical Engineering.

#### THE DEGREE OF MASTER OF ARTS.

The degree of Master of Arts (A.M.) is conferred upon graduates of the College of Liberal Arts of the University and upon others who have had an equivalent training elsewhere on completion in residence of at least a year's approved course of graduate study.

The course of study, which may be in any one or more than one of the departments of graduate study offered by the University, must be approved by the Committee.

The Master's degree may designate the special course pursued—e. g., Master of Arts in Science.

Candidates must register not later than the first Tuesday in October next preceding the date of the final examination.

A thesis embodying the results of investigation on an approved subject in the major department must be submitted and be approved by the Committee on Graduate Study before the candidate may be recommended for a degree. The work of the candidate must show marked excellence; and the thesis must conform with the printed regulations furnished by the University.

The subject for the thesis must be submitted to the Faculty for approval through the major professor not later than January 10, and the completed thesis not later than the last Saturday in April of the year in which the degree is desired.

# THE DEGREE OF MASTER OF ARTS AND THE DEGREE OF DOCTOR OF MEDICINE.

Upon students who complete the course in the Medical Department of the University after receiving the Bachelor's degree from the College of Liberal Arts or other institutions approved by the College, the degree of Master of Arts will be conferred on the following conditions:

- 1. A candidate for the degree of Master of Arts who is at the same time pursuing the regular course in the Medical Department must matriculate in the College of Liberal Arts at least two years before receiving the Master's degree.
- 2. The candidate's research work must be planned in conjunction with the Committee on Graduate Study in the College of Liberal Arts.

Reports of progress in the research work shall be made at such times as may seem advisable to the Committee. The results of such work must be embodied in a thesis approved by the Committee on Graduate Study.

3. The regulations of the College of Liberal Arts shall prevail concerning fees and thesis.

# THE DEGREE OF CIVIL ENGINEER AND THE DEGREE OF ELECTRICAL ENGINEER.

The professional degrees of Civil Engineer and Electrical Engineer are conferred on graduates of this University in the Civil Engineering and Electrical Engineering courses respective-

ly, on the satisfactory completion, in residence, of one year of graduate study, or on having been engaged in the active practice of their profession for at least three years, two of which shall have involved responsibility, and the presentation of an approved thesis showing ability to do independent work.

#### FEES AND EXPENSES

Undergraduate Study.	
Tuition per semester, payable in advance	\$ 40.00
Tuition per year (two semesters) if paid	
in advance	80.00
Tuition for six to ten hours per semester	30.00
Tuition for five hours or less, per semester	20.00
Athletic fee-required of all students, per	
semester	2.00
Gymnasium and physical education without	
other studies, per semester	8.00
Registration fee included in the above, but	<b>5</b> 00
not subject to rebate	5.00
Diploma fee	5.00
Laboratory fees, per semester:	
Each course in Chemistry requiring lab-	2.00
oratory work30	8.00
	.00 to 50.00
Physics:	4.00
1 and 2 each	4.00
3 Mechanical	4.00 00 to 6.00
4 Shop	6.00
Electrical Measurements	0.00
Electrical Engineering:	8.00
2 and 7 Dynamo Laboratory, each	0.00
Each course in Biology requiring labora-	4.00
tory work	2.50
Surveying, field work, per semester	2.50

An account is kept of breakage and an additional charge made therefor.

An additional deposit of five dollars to cover breakage is required in Chemistry. This deposit, less cost of breakage, is refunded at the end of the year.

The sons and daughters of ministers in the regular work of any evangelical denomination may have their tuition fee reduced to one-half the regular rate.

A discount of ten per cent, of the tuition will be allowed when two or more students enter from the same family.

Tuitions paid in advance will be refunded proportionately should the student be forced to leave school on account of sickness. No refund will be made for an absence of less than half a semester.

#### Graduate Study.

Tuition per semester, payable in advance	\$35.00
Registration fee, included in above	10.00
Diploma fee	. 10.00

Students who have received the Bachelor's degree from the University of Southern California will pay only ten dollars per semester and the diploma fee.

#### DORMITORY AND BOARDING CLUBS.

The Hodge Hall and University Boarding Clubs furnish board for young men at very reasonable rates. Information concerning membership in these clubs can be obtained upon application.

A dormitory is provided for the young ladies, where wholesome board and cozy rooms can be obtained at reasonable rates.

Board and furnished rooms can be secured in private families at from three to seven dollars per week. Furnished rooms, accommodating two students, cost from four to twelve dollars per month.

Other expenses incident to college life vary with the habits and circumstances of the student. They are not of necessity so great as to be burdensome to persons in moderate circumstances.

The Young Men's Christian Association conducts a free rental bureau for the benefit of all students and has all available rooms in the vicinity of the University campus listed and on file. The Young Men's Christian Association and the Young Women's Christian Association also conduct and employment bureau for the purpose of aiding needy and worthy students who are desirous of earning a part of their expenses while in school. Besides the odd jobs, permanent positions are secured for students. The general secretary of either association will be glad to answer any requests for information addressed to them.

#### GENERAL INFORMATION.

The College of Liberal Arts of the University of Southern California is situated in Los Angeles, about three and one-half miles southwest from the business section of the city. The College buildings are accessible by three lines of street cars, the Main Street, University and Pacific Electric lines. This is one of the most beautiful and rapidly growing residence portions of Los Angeles. The campus, comprising ten acres, has been improved by cement sidewalks and street grading on all sides, and a lawn in front of the main building.

#### Endowment and Improvements.

The endowment of the College of Liberal Arts, started a few years ago by the munificent gift of sixty-five thousand dollars by the late Rev. Asabel M. Hough and wife Anna G. Hough, has steadily grown until it has reached the sum of three hundred and fifty thousand dollars.

Substantial improvements have been made in all of the departments of the University. Many new books have been purchased and placed on the shelves of our Libraries.

The science halls of the College of Liberal Arts are well equipped with apparatus strictly up-to-date.

The gymnasium, the three tennis courts, the basketball court, the inclosed athletic field, with its quarter-mile cinder path, and the bleachers with thirty-five hundred sittings, furnish ample facilities for physical training and outdoor sports.

## Religious Privileges.

The moral atmosphere surrounding the student is exceptionally good. The Young Men's Christian Association and the Young Women's Christian Association are active and effective in social and religious life.

In addition to the daily chapel exercises, courses of special sermons are delivered from time to time. These privileges constitute a good Christian atmosphere in which to lay the foundation of character. Students are expected to attend some church each Sabbath, and are advised to join some Sunday class for the study of the Bible.

The University provides, during the College year, a free course of lectures dealing largely with biblical subjects.

The University Methodist Episcopal Church is located near the campus, and is one of the most prosperous churches in the city. The Baptists and Presbyterians also have churches in the near vicinity. These advantages, together with fine public school privileges, make the University section of the city a very desirable place of residence for families seeking educational opportunities.

### Ladies' Auxiliary.

An organization under this name is composed of more than fifty of the ladies of the city especially interested in the University. A cafeteria under their efficient management provides hot lunch or dinner at cost for students and faculties.

### Literary Societies.

The Aristotelian Literary Society for men is the oldest of the societies connected with the College. It has a large and well furnished hall in which to hold its meetings.

The Comitia, also for men, is in a flourishing condition.

The Athena and Clionian Societies are for young women. They have finely furnished halls, and are doing excellent work.

## The Library.

The Library is housed in the main building of the University. The Reference room contains the general reference books, and a carefully selected list of current periodicals. The stack room contains the circulating books. There are also two large study rooms, one on the main floor in the North Annex, the other on the second floor.

All officers, students and graduates of the University have free access to the Library and may draw books for home use. The shelves are open to the members of the faculty and students engaged in advance work upon recommendation of their major professor.

The Library contains over ten thousand volumes, exclusive of unbound pamphlets; also, what is known as the Dean Cochran Memorial Library, placed in the University by his son, George I. Cochran.

Each year books are added to meet the demands of the various departments.

The Library is open each day from 8 a. m. to 4:30 p. m.; Saturdays, 8:30 a. m. to 12 m.

#### The Museum.

An extensive collection of specimens in mineralogy and geology has been accumulated during the past years, by donations and purchase. Professor Dickinson, the first curator, opened the museum and classified it, making many donations from his own excellent private collection.

A few years ago the trustees purchased from Dr. Stephen Bowers a large collection of geological, mineralogical and archaeological subjects.

The late Rev. C. R. Pattee, D.D., donated about five hundred species of West Coast shells, a valuable geological, paleontoligical, mineralogical and conchological collection.

The late Mrs. Mary Wright has bequeathed to the University a very valuable collection of geological specimens.

# Physical and Electrical Engineering Laboratories.

The departments of Physics and Electrical Engineering occupy nine rooms on the first floors of the main building and Science Hall. These have been planned and equipped exclusively for the departments and are suited for the purpose for which they are used.

The Laboratories include: (1) General Physical Laboratory, (2) Electrical Measurements Laboratory, (3) Photometer Room, (4) Physical Optics, (5) Dynamo and Motor Room, (6) Repair Shop, (7) Office and Private Laboratory, (8) Stock Room, (9) Preparatory Physics Laboratory, (10) Lecture Room. The equipment is furnished by the best American and European makers. It is of recent purchase, modern and best quality. The equipment in Mechanics includes a number of excellent precision pieces by Gaertner; in Heat, apparatus by Pye of Cambridge, Eng.; in Light, spectrometers, prisms, gratings, etc., by Gaertner and Wilson. In Electricity the equipment is especially complete and of high order. Special mention may be made of (1) Standard Resistances, Postoffice Boxes, Type H Galvanometers (four), Port-

able Galvanometers, Thomson Dynamometer, Standard Cell and Shunts made by Leeds and Northrup; (2) Potentiometer by Pyc; (3) Standard of Self-induction, Sechometer, Kempe Discharged Key and Permeameter by Nalder & Co., England; (4) Variable Condenser, Tangent Galvanometers and Keys by Queen & Co.; (5) Indicating Meters, for both Alternating and Direct Currents, in which the equipment is unusually complete, including a large number of Ammeters, Voltmeters and Wattmeters of the well known Weston make; also, Whitney hot-wire, Wagner induction, Hoyt torsion-head, Aryton & Perry plunger type and others.

The dynamo room is equipped with a Fairbanks-Morse gas engine for driving the electric generators. These consist of a 7.5 Kw. General Electric Co. revolving field Alternator, a 7.5 Kw. Three Rivers compound wound D. C. 125-volt generator and a 7.5 Kw. Westinghouse double current generator. The G. E. alternator is provided with a special winding for various phase and voltage connections, and with three extra rotors so that it may also be run as an induction motor with squirrel cage rotor, with external resistance rotor, or with internal resistance rotor. Controllers, rheostats and compensator are provided. The Westinghouse machine may be run as a 1, 2 or 3-phase alternator or as a 125-volt D. C. generator or as a Rotary Converter.

In addition to these machines there are also: Crocker-Wheeler 1.5 Kw. D. C. generator, Edison 1.5 Kw. D. C. generator, Westinghouse 800-watt D. C. generator, Westinghouse 1 and 5-horse-power induction motors, General Electric 1 and 3-horse-power induction motors, the latter with the phases wound in different colors and all the coils led to a terminal board. There are, also, transformers, water rheostats, arc lamps, switchboards, etc., in conjunction with the machines. Circuits run to the electrical measurements room and lecture room, and one of the motor-generator sets is arranged for operation in the lecture room for demonstration purposes. A stereopticon with slides showing modern electric installations is provided.

The Library contains a large number of reference books on many special subjects in Electrical Engineering and General Physics.

#### The Chemistry Building.

The department of Chemistry occupies the building in the southern portion of the campus. The laboratory for general chemistry will accommodate one hundred ten students; that for quantitative chemistry forty students; that for organic chemistry twentyfive students. The laboratories are thoroughly equipped with modern laboratory tables, water, gas, apparatus and chemicals; they contain a large number of hoods and all of the conveniences of a modern laboratory. The balance room is a separate room. well lighted and equipped with twelve fine analytical balances. The store-room is accessible from the different working laboratories and is supplied with a large quantity of apparatus and chemicals of the best make. A special research laboratory accommodating twenty-five students is thoroughly equipped with storage batteries for electro-chemistry, also with combustion apparatus and special apparatus for determining molecular weight. Another laboratory is equipped for investigations on oil and gas. The equipment consists of stills, hydrometers, viscometers, Atwater's bomb calorimeters for heat determination. Junker's patent gas calorimeters, Hempel's gas apparatus, Elliot's sulphur apparatus and a thermo-electric pyrometer. There are also four additional research laboratories.

## Assay and Metallurgical Laboratory.

This laboratory occupies a large room in the new Chemistry Building. The equipment consists of rock crushers, ore grinders of several kinds, amalgamating fans, all driven by electricity. The furnaces are of the latest type, using gas for fuel. The equipment includes apparatus for concentration and amalgamation tests, as well as a complete cyanide and chlorination plant. Special facilities are afforded for the electrolytic-reduction processes. The laboratory is modern in every detail.

## The Biological Laboratories.

The entire second floor of the new north wing of the main building is devoted to the biological laboratories and lecture room. The laboratories are so planned that each student has abundant light, 110 feet of desks face immediately to the north. Each student is supplied with two drawers and microscope locker, each with Craig combination locks.

The Zoological Laboratory, 34x35 feet, contains now forty-seven single desks and a large demonstration table 4x11 feet with drawers and cupboards on each side for supplies. The laboratory is provided with blackboard, glass cases for books, reagents and specimens; a sink, aquarium and drip for keeping live specimens. Each student is furnished a compound microscope, BA 2 or BB 2, dissecting instruments and necessary materials for dissection and study.

A Bausch & Lomb physician's type of microscope has been presented to the department by Mrs. Scherer in memory of her husband, the late Dr. Luther D. Sherer. The instrument is provided with a complete set of lenses and accessories as follows: Objectives, 1-12 inch oil immersion, ½ inch with compensating collar, and ¾ inch. Two eye pieces, substage condenser, stage micrometer, eye-piece micrometer and other accessories, all in good condition.

The Botanical Laboratory is thirty by forty-five feet. It contains forty-four single desks with drawers, locker and Craig combination locks for each; a large demonstration table; cases for twenty thousand herbarium specimens, books and supplies; blackboards, sinks, aquarium and drip. A compound microscope, dissecting instruments and materials are furnished each student.

The Laboratory for Bacteriology and Physiology is 29x46 feet. facing the north. It is supplied with autoclay, Arnold and hot an sterilizers, incubators, glassware and all other necessary equipment for work in bacteriology. There are thirty-one single desks in this laboratory, a large demonstration table, two hoods and cooling chamber, sink, tank, tables, cupboards and case for reagents and supplies. All the necessary materials, apparatus and instruments including BB8 Bausch and Lomb microscopes are furnished the student. For Physiology the laboratory is supplied with all the necessary reagents and apparatus such as microscope, haemocytometer, dissecting instruments, etc., for successful laboratory work. A complete set of the Harvard Physiological apparatus has been added. For Histology and Embryology the student is supplied with BB8 microscope and has the use of the Minot automatic rotary microtome, Bausch and Lomb's automatic laboratory microtome, and all reagents necessary to carry on successful work

The research laboratory, 15x17 feet, adjoins the office of the department which is also 15x17 feet. The equipment of these rooms is such as adapts them to advanced work along special lines. The best microscopes of German and American make are available, including Bausch and Lomb, CC8, Zeiss IIa, with achromatic and a set of apo-chromatic objectives with compensating eye pieces. Other microscopes of the Leitz and Spencer types, also imbedding baths, centrifuge, camera, numerous microscope accessories and instruments are provided.

The lecture room is 32x36 feet with raised seats. It has a seating capacity of about two hundred and is provided with skylight and fitted with screens for darkening to adapt it to the use of the electric projection apparatus and stereopticon which form part of the equipment. The lecture desk which is fitted with drawers and cupboards can be adjusted instantly for gas or water for demonstration purposes. This room as well as all others is well supplied with electric lights.

The wide halls have been provided with glass cases in which are placed a large collection of birds, mollusks and alcoholic specimens for demonstration and study. The collection of mollusks is very complete, representing over eighteen thousand specimens.

## Athletics and Physical Culture.

The Faculty of the College of Liberal Arts, recognizing that physical culture is both hygienic and educative, desires to encourage every reasonable effort in the direction of physical development consistent with strong manhood and womanhood. On its hygienic side it should aid the body in all its functions, develop a symmetrical form, correct deformity as far as possible, and afford recreation. In its educative function it should afford the discipline necessary for self-control, both mental and moral.

There are two active tennis clubs with three well kept courts.

# Gymnasium and Athletic Grounds.

Athletic sports are encouraged for their value in developing the body, in furnishing a means of pleasant recreation, as well as a source of social and ethical culture, and in cultivating the spirit of co-operative enterprise. The gymnasium has been fitted with appliances for the proper development of the body. The necessary apparatus of the newest and most approved designs has been provided. The director has made preparations for the training in the gymnasium of both the young men and young women, who will have separate lockers and baths and use the building at different periods of the day. The students have all the advantages of the gymnasium, with baths, lockers and dressing room accommodations.

A complete equipment is provided for each form of exercise. Galleries will afford audience room for special gymnastic exercises when such are open to the public.

Each student, on entering the department, undergoes a thorough physical examination, in order that his physical condition may be known to the director, and suitable exercise prescribed. Various strength tests and measurements are given; the heart, lungs and eyes are examined, and the utmost caution used in the advice given regarding individual exercise. One examination during each semester is required, the latter demonstrating any improvement or change in the student's physical condition. Anthropometric cards and charts are platted for students when desired.

## Athletic Contests.

All athletic and team contests are under close supervision of the director and no student is permitted to compete in games or contests whose physical examination shows that he or she is unfit.

Any person who desires to enter athletic contests must attain a certain standard of scholarship before being permitted to participate.

# Gymnastics for Women.

Before entering upon this training every young woman is given a thorough physical examination by Dr. Ethel L. Leonard of the College of Physicians and Surgeons, in order that only such exercises may be given as are suited to the student's individual needs. If owing to any physical inability to take the work with the regular classes it seems necessary to take special corrective work, private instruction may be arranged for.

The regular course includes gymnastics, athletics and physical culture. A combination of the Swedish and German system of gymnastics is used.

The gymnasium is well equipped with apparatus. All work must be done under the supervision of the Director.

The Athletic grounds are adjacent to the gymnasium and participation in out-door sports is expected of all young women taking physical training. They may elect tennis, volley-ball, basket ball, or walking.

Students are required to provide themselves with a special suit for gymnasium exercises. The Director must be consulted in this matter, in order that there may be uniformity of costume

## SCHOLARSHIPS.

The following scholarships have been founded in the College of Liberal Arts. Others contemplate the establishment of prizes and scholarships, and it is earnestly hoped that soon a goodly number can be offered. Friends of the College can greatly add to its attractiveness in this way.

# The Hugh Johnston Scholarship.

This scholarship was founded by Mrs. Anna H. Johnston, of Pasadena, in memory of her deceased husband, and is for the benefit of needy students. Mrs. Johnston will name the incumbent when she desires. Otherwise this will be done by the authorities of the University.

# The Spence Scholarship.

This scholarship was founded by the Hon. E. F. Spence in his life time, and is devoted to the use of needed students in the San Diego district, upon the recommendation of the District Superintendent of that district.

# The A. C. Hazzard Scholarship.

A thirty-year scholarship founded by Rev. A. C. Hazzard, of Whittier, for the benefit of students preparing for Christian work.

# The A. M. Peck Scholarship.

Founded by A. M. Peck of Compton.

# The Poplin Scholarship.

Founded by F. L. Poplin of Los Angeles. The incumbent to be named by the founder.

# The Ontario Scholarship.

For the benefit of graduates of the Ontario High School.

# Zana E. Stevens Scholarship.

Founded by Rev. F. G. H. Stevens, September 16th, 1907, in memory of Zana E. Stevens, nee Terpenning, of the class of 1901. This scholarship is to be filled by a member of the J. O. C. Class of the First Methodist Episcopal Church of Santa Monica, of which Mrs. Stevens was the organizer and teacher. The incumbent is to be named by the founder when he so desires, otherwise by the District Superintendent of the Los Angeles District and the authorities of the University. In case no member of this J. O. C. Class is eligible, the incumbent shall be chosen from any J. O. C. members who apply for same. In case none such apply, the incumbent shall be chosen from any female students who apply.

# The A. M. Hough Scholarship.

Founded by Mrs. Anna G. Hough May 7, 1908, by the payment of one thousand dollars. This scholarship is to be perpetual, and is to be used to aid some student each year in the College of Liberal Arts who is preparing to enter the ministry of the Methodist Episcopal Church. In case no such student should apply, the President of the University is authorized to use the scholarship to benefit any worthy student needing such help.

## George I. Cochran Scholarship.

Founded by George I. Cochran; founder to name the student receiving the benefit.

## PRIZES

## The Lottie Lane Prize.

This prize, established by Mrs. Charlotte A. Thomson as a memorial to a deceased daughter, is an elaborate gold medal, to be presented each year at Commencement to that member of the graduating class who shall have maintained the highest general average in scholarship throughout the whole college course. Students who have taken more than four academic years to complete the course or those who have received credit for work done elsewhere than in this College, are not eligible for this prize. This medal was 'awarded in 1909 to Leslie F. Gay, Jr.

## The Oratorical Prize.

The Phi Alpha Fraternity gives an annual prize of twenty-five dollars for the best oration delivered in the local contest by an undergraduate; the Oratorical Association offers a second prize of fifteen dollars and a third prize of ten dollars. The first prize was awarded in 1909 to Leslie F. Gay. Ir.

## GIFTS TO THE UNIVERSITY.

The Hough Fund. This is a fund of \$65,000 given by Rev Asabel M. Hough, deceased, and his wife, Anna G. Hough, of Los Angeles. It is to be held by the University in perpetuity, and the income is to be used for current expenses of the College of Liberal Arts, or as the Board of Trustees may annually direct.

The Hazzard Professorship. Rev. A. C. Hazzard has given to the University, property valued at \$30,000 for the endowment of a professorship in English Bible.

The Mcrryman Professorship. Mr. T. D. Merryman has given to the University property valued at \$25,000 for the endowment of a professorship in Mathematics.

Hartupee Gift. This gift consists of \$22,500.

For further information address,

UNIVERSITY OF SOUTHERN CALIFORNIA, Los Angeles, California.

# DEPARTMENTS OF INSTRUCTION

## BIOLOGY.

Professor Albert B. Ulrey (Zoology).

Assistant Professor, Andrew C. Life (Botany).

Laboratory Assistants: Chas. L. Parmenter, Percy S. Barnhart, Earl E Burk.

Courses adapted to the needs of students who do not major in Biology but desire some knowledge of organic nature and training in scientific methods are: General Zoology or General Botany and Bionomics.

Major work: (a) Animal Biology, courses 1-6; General Biology, courses 1 and 2; (b) Plant Biology, courses 1-5; General Biology, courses 1, 2 and 6.

Courses affording preparation for directors of Physical Education and Health and Development: Animal Biology, 1, 3, 4 and 5; General Biology, 1, 2 and 3; Anatomy, Physiology and Physical Diagnosis (courses given in the Medical College); courses in Education which are adapted to the student's needs

The courses in General Zoology, Physiology, Bacteriology, General Botany and Bionomics are offered each year. Other courses given will be determined by the available time of the instructors and the needs of the students of the department.

Two or more assistants are selected each year from the advanced students of the department who maintain a high standard of scholarship and are otherwise qualified for the work.

## ANIMAL BIOLOGY.

1. General Zoology. Laboratory study of representative types of invertebrate and vertebrate animals from the simplest to the most complex. A series of lectures co-ordinating the laboratory work and dealing with the general problems of Biology. The course includes a study of animal structure, functions, relationships and adaptation to environment. The student receives

instruction in the use of the microscope, dissecting apparatus, and is directed in the study of animals in their native environment. Ten hours laboratory work and lectures per week throughout the year. Four hours, both semesters. 2-3:50, Monday, Tuesday, Wednesday, Thursday.

- 2. Histology. The microscopic anatomy of animal tissues Methods of preparation of tissue with practice in fixing, sectioning, staining and mounting. Laboratory work, lectures and recitations, six hours per week, one semester. Prerequisit: Course 1. Three hours, either semester.
- 3. Embryology. The general course of development of one of the higher vertebrates. Special study of the early stages of development of the organs. Embryological methods and practice in serial sectioning. The lectures deal with the general problems of embryology. Six hours per week, one semester. Prerequisites Courses 1 and 2. Three hours, either semester.
- 4. Physiology. Lectures, laboratory work and recitations or the activities of living organisms. Special study of the physiology of the human body. Six hours per week, one semester. Prerequisites Course 1 or Plant Biology 1. Three hours, second semester. 8-9:50, Monday, Wednesday, Friday.
- 5. Anatomy of Vertebrates. Dissection of types of the higher vertebrates; quizzes, recitations and lectures. The course is primarily for preparatory medical students. Six hours per week are required in the laboratory, one semester. Prerequisite Course 1. Three hours, either semester.
- 6. Systematic Zoology. The course deals with certain groups of vertebrates with special reference to morphology and relationships. Laboratory study, field work and lectures. Six hours per week, one semester. Prerequisite Course 1. Three hours, either semester.
- 7. Advanced Physiology. This course is given in the College of Medicine.
- 8. Special Zoology. Investigation of some topic of limited scope. This course is planned to meet the needs of each student prepared to pursue it. Six hours per week, throughout the year. Prerequisite Courses, 1, 2, 3, 4 and 5, or their equivalent. Three hours, both semesters.

## PLANT BIOLOGY.

- 1. General Botany. The course comprises a study of typical plants representing the vegetable kingdom. The first semester as well as a part of the second is devoted to Thallophytes and Archegoniates; the remainder of the second semester to Spermatophytes. Laboratory study, field work and lectures. Ten hours per week throughout the year. Four hours, both semesters 10:25-12:10, Monday, Tuesday, Wednesday and Thursday.
- 2. Plant Anatomy and Histology. The minute structure of the systems of tissues. Microscopical technique in preparing permanent mounts. Laboratory work and lectures. Six hours per week, one semester. Prerequisite Course 1. Three hours, either semester.
- 3. Plant Physiology. Experimental work on the physiology of plants, lectures and supplementary reading. Six hours per week, one semester. Prerequisite Course 1. Three hours, either semester.
- 4. Morphology of Bryophytes and Pteridophytes. A critical morphological study of typical representatives of Bryophytes and Pteridophytes, their development from the germinating spore to the adult. Special attention is given to the relationships of the groups as indicated by their structure, and to the phases of alternation of generations illustrated by the types studied. Six hours per week, one semester. Prerequisite General Botany. Three hours, either semester.
- 5. Ecology and Taxonomy. A study of flowering plants (spermatophytes) in the local flora. The course deals with the relationship of plants to their environment; affinities indicated by their structure, and a brief consideration of pedigree-cultures. Six hours per week, one semester. Prerequisite General Botany. Three hours, either semester.

## GENERAL BIOLOGY.

1. Bionomics. A course of lectures dealing with the general principles of Biology. The problems of inheritance, development and sex are considered from the cytological standpoint throughout the first semester. Variation, heredity, selection, regeneration and kindred topics are studied during the second semester. Two hours per week, throughout the year. Prerequi-

site General Zoology or General Botany. Two hours, both semes ters. 8:55, Tuesday and Thursday.

- 2. Bacteriology. The course consists of a study in the laboratory and by means of lectures of the nature of the bacterial organism; its relation to disease, methods of cultivating and isolating; inoculation experiments, staining of sections, examination of water, etc. Six hours per week, one semester. Prerequisite Botany 1, or Zoology 1. Three hours, first semester. 8-9:50, Monday, Wednesday, Friday.
- 3. Hygiene and Sanitary Science. A course of lectures and laboratory demonstrations on (a) the improvement and preservation of health, and (b) the applications of science in the home. Open to all students. Two hours, either semester.
- 4. Microscopical Technique. A course dealing with special methods of Microscopy. Laboratory work and lectures. Two hours, either semester.
- 5. Seminar. The advanced students and instructors of the department meet two hours per week for reports on special investigation and present-day problems of biology. One hour, both semesters.
- 6. Journal Club. Reports on the current literature of biology, one hour per week throughout the year.

# CHEMISTRY.

Professor Laird J. Stabler.
Assistant Professor, Ethel W. Graves.
Laboratory Assistants:
J. George Davidson,
Lorenzo A. Hampton,
George J. Wheat,
G. Forrest Murray.

Courses 2, 2a, 3 and 3a are prerequisite to all other courses in Chemistry.

In all laboratory courses except Course 14 a deposit of thirteen dollars per semester for each course is required. Of this, five dollars per semester, less breakage, is returnable. In Course 14 a fee of ten dollars is charged, and, in addition, a deposit of ten to thirty dollars is required to cover cost of material consumed.

#### LOWER DIVISION COURSES.

1. General Inorganic. A lecture and recitation course, covering the principles of Chemistry. Open only to students who do not present entrance credits in chemistry. Smith's Chemistry for Colleges. To be taken in connection with Course 1a. Three hours, first semester. 9:55, Monday, Wednesday, Friday.

1a. General Inorganic. A laboratory course in General Chemistry, including preparation of simple inorganic compounds, and experiments illustrating general laws and properties of elements and common compounds. Smith's Laboratory Manual. Six periods a week in the laboratory. Two hours, first semester. 1:05-3:50, Wednesday, Thursday.

2. Qualitative Analysis. Metals. Lectures and recitations dealing with detection and identification of metals. Prerequisite, Matriculation Chemistry. Smith's Chemistry for Colleges. To be taken in connection with 2a. Three hours, beginning either semester. 1:05, Wednesday, Thursday, Friday.

2a. Qualitative Analysis. Metals. A laboratory course in Qualitative Analysis, covering detection and identification of metals and a completion of unknowns containing metals. Morgan's Qualitative Analysis. Six hours a week in the laboratory. Two hours, either semester. 1:05-3:50, Monday, Tuesday.

3. Qualitative Analysis. Nonmetals. A continuation of Course 2. A study of Qualitative Analysis, including nonmetals, interfering substances and insolubles To be taken in connection with 3a. Three hours, either semester. 1:05, Wednesday, Thursday, Friday.

3a. Qualitative Analysis. Nonmetals. A laboratory course covering identification of nonmetals, detection and removal of interfering substances, and a complete qualitative analysis of several minerals. Morgan's Qualitative Analysis. Six hours a week in the laboratory. Two hours, either semester. 1:05-3:50,

Monday, Tuesday,

- 4. Quantitative Analysis. Laboratory practice in gravimetric and volumetric determinations, with occasional lectures and recitations. Talbot's Quantitative Chemical Analysis. Nine hours per week in the laboratory. Three hours, both semesters. Hours to be arranged.
  - 5. Advanced Qualitative Analysis. A laboratory course in-

volving difficult qualitative separations, and detection of some of the rare elements. Weekly lectures and discussions. Prescott and Johnson's Qualitative Analysis is recommended for reference. Three hours, either semester. Hours to be arranged.

## UPPER DIVISION AND GRADUATE COURSES.

- 6. Inorganic Preparations. A laboratory course including preparation of inorganic compounds, with tests for purity and strength. Prerequisite, Course 4. Two hours, either semester. Hours to be arranged.
- 7. Organic Chemistry. Lectures and recitations on the chemistry of the carbon compounds. Remsen's Organic Chemistry. Two hours, both semesters. 1:05, Monday, Tuesday.
- 7a. Organic Preparations. A laboratory course in the preparation of typical carbon compounds. Open to students who have completed Courses 2, 2a, 3a, 5 and 7. Two hours, both semesters. Hours to be arranged.
- 8. Mineral Analysis. Gravimetric and volumetric analysis of representative minerals, ores and alloys. Prerequisite, Course 4. Four or five hours, either semester. Hours to be arranged.
- 9. Physical Chemical Measurements. A laboratory course in physical-chemical methods. Molecular and atomic weight determinations by vapor density, boiling-point and freezing-point methods. Determination of conductively of electrolytes, reaction velocity, isothermal and chemical equilibrium. Prerequisite Course 4. Physics and Calculus. Two hours, either semester. Hours to be arranged.
- 10. Quantitative Analysis of Agricultural Products. Systematic analysis of fertilizers, dairy products, etc. Prerequisite, Course 4. Four or five hours, either semester. Hours to be arranged.
- 11. Medical Chemistry. A laboratory course, including urine analysis, toxicology and food analysis. Designed especially for students looking forward to medicine or pharmacy. Open to students who have completed or are taking Courses 4 and 7. Three hours, either semester. Hours to be arranged.
- 12. Food Analysis. A laboratory course in Chemistry of meat and meat products, edibles and fats, dairy products, cereal products, saccharine products, canned vegetables, cocoa, tea, coffee, spices, vinegar, flavoring extracts, fruits and fruit products.

fermented and distilled liquors, baking powders, food preservatives and coloring matter. Open to students who have completed Courses 4 and 7. Two hours, either semester. Hours to be arranged.

- 13. Industrial Chemistry. A lecture course covering the chemistry involved in the manufacture of oils, soap, sugar, explosives and other commercial products. Lectures will be given by chemists from various manufacturing establishments. Prerequisite, Courses 2, 3 and 7. Two hours, second semester. Hours to be arranged.
- 14. Assaying. This course comprises silver and gold extraction by scorification and crucible methods; fire assay of copper, lead and tin, extraction of gold from ores by the amalgamation, the chlorination, the cyanide and the electrolytic process. Two hours, either semester. Hours to be arranged.
- 15. Seminar. Papers and discussion on assigned topics, with lectures on subjects of general chemical interest. Open to advanced students. One hour, both semesters. Hour to be arranged.

Major Work: Sixteen semester hours in addition to courses 2, 2a, 3, 3a.

# ECONOMICS AND SOCIOLOGY.

Professor Rockwell D. Hunt.

## ECONOMICS.

## LOWER DIVISION COURSES.

- 1. Principles of Economics. A comprehensive introduction to economic study, based upon Seligman's text and supplemented by lectures, assigned readings, and student exercises. The topics studied include: the elements of economic life; the nature of value, and its relations to distribution; the theory and practice of exchange, money, credit and banking; the factors of production; the social ordering of wealth. Three hours, both semesters. 9:55, Monday, Wednesday. Friday.
- 2. Public Finance. A study of budgetary science, the principles and practice of taxation, public expenditures, and financial administration. Adams' Science of Finance used as a basis.

Three hours, second semester. 8:55, Monday, Wednesday, Friday.

- 3. Money and Banking. Origin and evolution of money, with special attention to the problems of metallic and paper money; history and theory of banking, with examination of leading systems and special problems. Three hours, first semester. Not given in 1910-11.
- 4. Economic Georgraphy. A survey of the history and present status of industry and commerce in the principal countries; natural advantages in the world market, and national policies in development of resources, with special attention to the United States. Three hours, second semester. Not given in 1910-11.
- 5. Transportation and Communication. The theory and history of transportation; development of the railroad, its organization, management and consolidations. Ocean and inland waterways. Problems of rebates, public regulation, etc. Postal service and express companies. Johnson's American Railway Transportation and his Ocean and Inland Water Transportation are used as guides. Two hours, first semester. 8:55, Tuesday, Thursday.

## UPPER DIVISION AND GRADUATE COURSES.

- 6. Labor Problems. The important labor problems of the day, with special reference to American conditions. Growth of labor organizations, strikes and lockouts, industrial arbitration, profit-sharing, woman and child labor, immigration, etc. Three hours, second semester. 2:00, Monday, Wednesday, Friday.
- 7. History of Economic Thought. Development of economic thought from classical antiquity, with discussion of the different schools of economists. Extensive readings from numerous writers. Two hours, first semester. 1:05, Tuesday, Thursday.
- 8. Recent Economic Thought. A comparative study of theories of leading economists of the present day, with special reference to the problems of the distribution of wealth. Two hours, second semester. 1:05, Tuesday, Thursday.
- 9. Municipal Problems. The rise and growth of the modern city. Economic, administrative and social problems presented. Regular work of the class is richly supplemented by an extensive series of special lectures by leading practical experts. Three hours, first semester. 2:00, Monday, Wednesday, Friday.

# SPECIAL LECTURES IN MUNICIPAL PROBLEMS. 1909-1910.

Congressman James McLachlan—"The Panama Canal and the Pacific."

General F. C. Prescott-"Distribution of the Public Domain."

Supt. E. C. Moore—"The Schools, the Children, and the Community."

Mrs. Willoughby Rodman—"Los Angeles and Her Future Citizens."

Assessor Walter Mallard-"Problems in City Taxation."

Dr. John R. Haynes-"Genesis of the Los Angeles Charter."

L. B. Austin-"The Young Man and the City."

Miss Grace Tatham—"The City's Young Womanhood."

Councilman A. J. Wallace—"City Government and Public Morals."

William M. Bowen, Esq.—"The Future of Agricultural Park.' George Leslie—"Help for Defective Children."

Miss P. S. Michelson—"Work Among the Iuveniles."

Dr. E. S. Chapman—"What the Anti-Saloon Is Doing."

Rev. Charles Edward Locke-"Demands Upon a City Pastor."

Postmaster M. H. Flint—"Postal Service in a Municipality." William Mulholland—"The Coming of the Water."

Lieut. C. W. Leeds-"The Harbor at San Pedro."

Dr. Dana Bartlett-"The Seer and His Vision."

Willis Booth-"Organized Publicity."

Note.—Economics 1 is recommended to students taking the six hours requirement (History or Economics) in this department. It is prerequisite to other courses in Economics.

# SOCIOLOGY.

### LOWER DIVISION COURSES.

1. Principles of Sociology. Elements of social theory. The structure, development and activities of human society. A comprehensive study of the social process and social ends, with frequent application to concrete conditions. Three hours, first semester. 10:50, Monday, Wednesday, Friday.

- 2. Social Problems. Studies in practical sociology, based on Carroll D. Wright's text, with lectures and reports. Problems of population, the family, the modern city, temperance, crime, poverty, etc. Each student investigates some concrete local question and presents results. Two hours, first semester. 10:50, Tuesday, Thursday.
- 3. Charities and Corrections. Studies in social pathology Poverty and philanthropy, the dependent classes, public and private administration of charities. The class visits charitable and reformatory institutions in Los Angeles and vicinity to study conditions and methods of social betterment. Two hours, second semester. 10:50, Tuesday, Thursday.

#### UPPER DIVISION AND GRADUATE COURSES.

4. Social Theories. A comparative study of the writings of leading sociologists of the present day. Extensive library work and frequent student reports are among the requirements. Open only to advanced students. Three hours, second semester. 10:50, Monday, Wednesday, Friday.

Note.—Sociology I is prerequisite to other sociology courses, except by special permission. Major work in Economics and Sociology, thirty semester hours.

## EDUCATION.

# Professor Thomas B. Stowell.

- 1. and 2. Foundational Psychology (see Philosophy). Six hours, two semesters.
- 3. Principles of Education (including General Method). A study of Psychological and Educational Principles which underlie the work of teaching. It considers primarily the psychology of the acts of teaching; secondly, the nature of the subject-matter to be learned; thirdly, how the mind of the teacher adjusts the mind of the learner to the task set, and thereby constructs the art of teaching.

Among the topics considered are the following: Functional psychology; the problems of psycho-physics; the interdependence

of the various forms of mental activity as applied to education; nervous plasticity; habit, neural and psychic; types of mind; personality and environment; attention and interest.

A limited number of psychological experiments illustrative of the matter under consideration is followed by discussions of their respective educative values. Lectures, discussions, collateral readings, theses. Horne's "Psychological Principles of Education." Courses 1 and 2 a prerequisite. Open to upper division and to graduate students. Three hours, first semester. 8:00, Monday, Wednesday, Friday.

4. Principles of Education (3 continued). DeGarmo's Principles of Secondary Education." Three hours, second semester.

- 5. History of Education: Ancient and Medieval. Beginning with the earliest periods and extending through the period of the Reformation. A study of the development of educational ideals and systems with special reference to the agencies that have been operative in their evolution; the physical and the social conditions which change ideals. Lectures, collateral readings, theses. Monroe's "Text-Book in the History of Education." Open to upper division and to graduate students. Three hours. first semester. 9:55, Monday, Wednesday, Friday.
- 6. History of Education: Modern. From the Reformation to the present, with a critical study of educational classics. especially the contributions of Comenius, Locke, Rousseau, Basedow. Pestalozzi, Herbart, Froebel, Spencer and contemporary educators (5 continued). Three hours, second semester. 9:55, Monday, Wednesday, Friday.
- 7. Aesthetics (See Philosophy 8). This course considers the psychology of Aesthetics; the principles controlling the expression of beauty and their application to the Fine Arts, including a brief history of the Arts with special reference to their importance and effectiveness as educating agencies. Lectures, readings, observations, reports. Bascom's Aesthetics." Two hours. first semester. 8:55, Tuesday, Thursday.
- 8. School Administration. A study of the problems of school supervision. It considers the problems of organization, and administration of public schools. Among the topics treated are the following: Federal and State control of education; county town, city and rural systems; school buildings, site, architecture.

sanitation, furniture, ventilation, heating, lighting; seating of pupils; playgrounds; the school, a social center; courses of study; examinations; grading and promotion; school discipline; public and private schools; sectarian education; the duties and the inter-relations of boards of education, superintendents, principals, teachers; the distinctive problems of each; a comparative study of our State systems and of National systems. Observations in the schools of Los Angeles. Lectures, discussions, reading, observations, reports. Arnold's "School and Class Management." Open to upper division and to graduate students. Two hours, second semester. 10:50, Tuesday, Thursday.

- 9. Education of Defectives and Feeble-Minded. A historical and critical survey of the methods employed in the education of the blind; of the deaf and dumb; of the feeble-minded; of abnormal and backward children; of the ethically defective; of epileptics; care of neglected and dependent children; with observation in the various institutions of Los Angeles which are conducted for the special care and treatment of these unfortunates. This course is articulated with Sociology 2 q.v. Observations, reports, readings, discussions. Open to upper division and to graduate students. One hour, first semester. 10:50, Tuesday.
- 10. Philosophy of Education. An advanced course in educational theory. It investigates the nature of the psychic activities which make education possible and desirable; the essential nature of the educating process and its limitations; the actual development of this process as seen in the various civilizations; the relations of national institutions to educational ideals; the essential difference between ancient and modern education; the Hebraic conception and Imperialism as educative forces; the school essentially a social institution; the course of study an expression of the concept, "The Individual." Lectures, discussions, critical study of educational sources. Rosenkranz's "Philosophy of Education." Prerequisite, Courses 1, 2, 3, 4, 5, 6. For graduate students. Three hours, first semester. 8:55. Monday, Wednesday, Friday.
- 11. Philosophy of Education (10 continued). Horne's "Philosophy of Education." Three hours, second semester. 8:55, Monday, Wednesday, Friday.

## 12. Health and Development.

Measurements: Practical courses with laboratory work in normal measurements of children of school age; in diagnosis of variations from the standards, with special attention to the following: Chest development, flat chest, stoop shoulders, shallow respiration, spinal curvatures, congenital and acquired deformities, dislocations and injuries, corrections of abnormal conditions which are at the command of the school.

Health: Good, fair, poor; fatigue; frequent colds; lack of vitality; frequent headaches; dizziness.

Hygiene and Sanitation: School-room; seating, heating, lighting, ventilation, air-testing; lavatories; plumbing; drinking fountains; playgrounds; artificial respiration; first aid to the injured.

Prerequisites, see Schedule. Open to seniors. Three hours, both semesters.

13. Health and Development. Continuation of Course 12. Laboratory work in physical diagnosis, with seminar.

Vision: Defective eye-sight, near-sight, far-sight, astigmatism, strabismus; diseases of the eye; use of trial-case.

Hearing: Defective hearing; abnormal conditions of the ear.

Mouth: Defective speech, lisping, stammering, poor articulation, resonance of voice; teeth, irregularities, decay, neglect, need of attention.

Nose and Troat: Indications of adenoids, of enlarged tonsils; nasal voice; mouth-breathing; adenoid face.

Heart-action: Shortness of breath; poor circulation; pallor; lack of vitality; practice in use of stethoscope.

Nervous Condition: Excitability; nervous instability; fatigue Contagious Diseases: Incipient stages of infectious and contagious diseases; appearance of skin diseases.

For graduates. Prerequisite, Course 12. Three hours, both semesters.

14. Practice in Teaching. The Preparatory School of the University, located on the University Campus, furnishes rare facilities for observation and for actual experience in handling classes and giving instruction to classes in Secondary Education. Five hours, one semester.

# SCHEDULE OF COURSES IN EDUCATION.

## UPPER DIVISION AND GRADUATE STUDENTS.

	Junior Year Hours.	Semesters.	Total.
1.	Education 1, 2. Psychology	2	6
2.	Sociology: Problems and Principles 3	2.	6
3.	Physiology (Prereq. Gen'l Zool.) 3	1	3
4.	Bacteriology	1	3
5.	Sanitary Science 2	. 1	2
6.	Education 9. Defectives	1	1
7.	Electives6	2	12
			33
	Senior Year.		
1.	Education 3, 4. Principles of Educa-		
	tion 3	2	6
2.	Education 5. 6. History of Education 3	2	5
3.	Education 7. Aesthetics	first	8
	Education 8. Administration 2	second	2
5.	Education 12. Health & Development. 3	2	6
·6.	Electives6.	2	12
			34
	Graduate Year.		
1.	Education 10, 11. Philosophy of 3	2	6
2.	History of Philosophy	2	6
3.	Education 14. Teaching 5	1 .	5
4.	Education 13. Health & Development 3	2	6
5.	Electives 5	2	10
			33

# RECAPITULATION.

# Junior.

Pedagogy	7 hours
General	6 hours
Science	8 hours
Elective	12 hours.
	22 hauna

Senior. Pedagogy Elective	10.1
	34 hours
Graduate.	
Pedagogy	17 hours
Philosophy	
Elective,	
•	33 hours
	100 hours

## ENGLISH.

Professor James Main Dixon.
Associate Professor, Odell Shepard.
Dr. Ezra A. Healy, Lecturer in English Literature.
Miss Nancy K. Foster, Lecturer in English Literature.

For major work in English all candidates must take courses A1 and B1 and 5, and C1, 2, 9, 10. For minor work, modern language, or history is recommended.

## A. RHETORIC.

Special requirements for major work: A.3, 4; C.3, 4, 7, 8, 15. Minor recommended in French.

#### LOWER DIVISION COURSES.

1. Composition and Rhetoric. The first semester is devoted to narrative and expository writing based on Wendell's English Composition and Woolley's Handbook of English Composition. Second semester, paragraph writing, following Arlo Bates' Talks on Writing English. Three hours, both semesters. Section A, 8:00 Monday, Wednesday, Friday. Section B, 8:55 Monday, Wednesday, Friday. Section C, 10:55 Monday, Wednesday, Friday. (Professor Shepard.)

- 2. Rhctoric Treated Editorially. With practice in writing editorials, book reviews and critiques. Text-book: Denny & Scoti's Paragraph-Writing. Two hours, first semester. (3 units.) 1:05 Monday, Wednesday. (Dr. Dixon.)
- 3. The Rhetoric of Oratory. With preparations of orations and briefs for debate. Text-book: Shurter's The Rhetoric of Oratory. Two hours, second semester. 1:05, Monday, Wednesday. (Dr. Dixon.
- 4. Short Story and Advanced Composition. Extensive practice in narrative, editorial and essay writing. Open to all who have obtained a high grade in Freshman English. Two hours, first semester. 8:00, Tuesday, Thursday. (Professor Shepard.)

5. Seminar in Rhetoric. Systematic practice in theme-reading. Open to upper classmen upon consultation. Two hours, both semesters. (Professor Shepard.)

## B. PHILOLOGY.

Special requirements for major work: B. 2, 5; C. 15, 17, with minor recommended in German.

## UPPER DIVISION AND GRADUATE COURSES.

- 1. Early English Grammar. Text-book: Cook's First Book in Old English. Two hours, first semester. 2:00 p. m. (Dr. Dixon.)
- 2. Early English Poetry. Text-books: Crow's Maldon and Brunanburgh; Harrison & Sharp's Beowulf. Two hours, second semester. 2:00 p. m. Monday, Wednesday. (Dr. Dixon.)
- 3. Early English Prose. Text-books: Wyatt's Early English Grammar, John's Gospel in West Saxon. Two hours, first semester. 2:00 p. m. Tuesday, Thursday. (Dr. Dixon.)
- 4. Middle English from the Peterborough Chronicle to Piers Plowman. Text-book: Emerson's Middle-English Reader. Two hours, second semester. 2:00 p. m. Tuesday, Thursday. (Dr. Dixon.)
- 5. Chaucer. Rapid reading, largely in the Canterbury Tales and The Legend of Good Women, based upon Greenlaw's Selected Readings from Chaucer, and the Globe Chaucer. Two hours, second semester. 8:00, Tuesday, Thursday. (Professor Shepard.)

6. Origin and Growth of the English Language. A systematic study of English as an Indo-European tongue, with the laws that have governed its development, and its relations to the Classical and Romantic Languages and the German and Scandinavian. Recommended for major work to all language students Text-book: Krapp's Modern English, Its Growth and Present Use. One hour, both semesters. 1:05, Friday. (Dr. Dixon.)

## C. LITERATURE.

Special requirements for major work: C. 5, 6, 16, 17. Minor recommended in History.

### LOWER DIVISION COURSES.

- 1. General Survey of English Literature. Text-books: Crashaw's -The Making of English Literature, Manley's English Poetry. Prerequisite for Elective Cources. Two hours, both semesters. 9:55, Tuesday, Thursday. (Miss Foster.)
- 2. General Survey of American Literature. Wendell and Greenough's History of Literature in America. Assigned readings and reports. Two hours, first semester. 8:55, Tuesday, Thursday. (Professor Shepard.)
- 3. English Prose of the Seventeenth Century. Text-book: Craik's English Prose, Vol. III. Two hours, second semester. 9:55. Tuesday. (Dr. Healy.)
- 4. The Modern Novel. The aim of this course is to follow certain tendencies in the development of modern fiction. Extended study is given to Dickens, Thackeray, Jane Austin, Charlotte Bronte, George Eliot, and Meredith, with briefer readings from representative French and Russian novelists, and from contemporary writers. Two hours, both semesters. 8:55, Tuesday, Thursday. (Miss Foster.)
- 5. English Poetry from Dryden to Cowper. Text-book: Manley's English Poetry. Two hours, first semester. 9:55, Tuesday, Thursday. (Dr. Healy.)
- 6. Nineteenth Century British Poets. First semester—Words worth, Shelley, Keats, Tennyson. Second semester—Browning, Rossetti and Matthew Arnold. Three hours, both semesters. 9:55 Monday, Wednesday, Friday. (Dr. Dixon.) (Miss Foster.)

#### UPPER DIVISION AND GRADUATE COURSES.

- 7. English Prose Writers of the Eighteenth Century, with lectures on the growth of society and the development of movements and institutions. Text-book: Craik's English Prose, Vol. IV. Two hours, first semester. 9:55, Tuesday, Thursday. (Dr. Dixon.)
- 8. English Prose Writers of the Nineteenth Century. With lectures on modern thought and brotherhoods. Text-book: Dickinson and Roe's Nineteenth Century English Prose. Two hours, second semester. 9:55, Tuesday, Thursday. (Dr. Dixon.)
- 9. Shakespeare. Rapid reading of eighteen plays, supplemented by lectures on the stage customs, theaters, social conditions and dramatic ideals of Elizabethan London, as they bore upon the life and work of Shakespeare. Text-book: The Cambridge Shakespeare. Three hours, second semester. 9:55, Monday Wednesday, Friday. (Professor Shepard.)
- 10. Milton's Epic and Dramatic Poems. Text: Cambridge edition of Milton's Complete Works. Two hours, first semester. 2:55, Wednesday, Friday. (Dr. Dixon.)
- 11. Browning. The aim of this course is to discover the salient characteristics of the poet's art and thought by the study of specially chosen dramas, lyrics and monologues. 10:50, Monday, Wednesday. (Miss Foster.)
- 12. History of Greek Literature from Homer to Theocritus. Lectures and recitations based on the work of the English translators of Greek masterpieces. Texts: Jebb, Primer of Greek Literature; Murray, Ancient Greek Literature; Symonds, Greek Poets, Translations of Homer—Pope, Bryant, Chapman, Lang, Leaf, Myers; Plumptre's Sophocles and Aeschylus; Potter's Euripides; Jowett's Plato. No knowledge of the Greek language is required. Three hours credit, both semesters. Two recitation periods per week, Tuesday, Thursday, 8:55. (Professor Owen.)
- 13. Elizabethan Drama. Lectures on the development of the English drama and stage from the publication of Gorboduc to the closing of the theaters. Eighteen plays are read. Three hours credit. Text-book: Symonds' Predecessors of Shakespeare. Two hours, second semester. 8:55, Tuesday, Thursday. (Professor Shepard.)

14. Comparative Study of the Drama. Lectures with assigned readings and reports on the Greek, Latin, Sanscrit, Italian, Spanish, German and French drama, read in English translation. Text-book: Matthews' Development of the drama. Open to students who have taken English C. 13, or its equivalent. Two hours, first semester. 9:55, Tuesday, Thursday. (Professor Shepard.)

15. \*The Schools and Vocabulary of Literary Criticism. Lectures on the history and development of criticism, with special attention to modern canons of criticism. Text-book: Bray's History of English Critical Terms. Two hours, second semester.

10:50, Tuesday, Thursday. (Dr. Dixon.)

16. Philosophy of Literature. Lectures with assigned readings and reports, forming a comprehensive sketch of the literature of the world. A study in the evolution and development of literary forms upon the basis of the biological analogy. Textbook: Hegel's Philosophy of History. Three hours credit. Two hours, first semester. 9:55, Monday, Friday. (Professor Shepard.)

17. Seminar in Versification. A close study of the laws of English prosody, with special attention to the relationship between music and verse. Musical notation for verse forms will be studied with Thomson's Basis of English Rhythm as guide. General text-book: Alden's English Verse. Two hours, second semester. 3:55, Monday, Wednesday. (Dr. Dixon, assisted by the English faculty.)

## ENGLISH BIBLE.

## Professor John G. Hill.

### LOWER DIVISION COURSES.

1. The Pentateuch and Historical Books of the Old Testament. Hebrew origin, history, tradition, cosmogony, morals, laws, government, and religious philosophy from Abraham to Solomon will be mastered. The questions of date, author, purpose, plan, style of literary composition and ruling ideas of each book will be studied. Two hours, first semester. 1:05, Tuesday, Thursday,

- 2. The Prophetic and Kingly Books of the Old Testament. This course will survey the varied and swiftly changing periods of Hebrew and Jewish history from the close of the United Kingdom to the close of Old Testament times. The greatest stress, however, will be laid upon the study of the prophets; their unique place and power, their relation to state and Church, their distinctive messages and permanent contribution to the history of religion. Two hours, second semester. 1:05, Tuesday, Thursday.
- 3. The Apostolic Age of the New Testament. This course is a careful survey of the Apostolic Church of the first century, its origin, strange success, painful conflicts with Judaism, brutal persecutions by Paganism, its new life in the dying Empire; also a comparison of the religious ideas of Paul, Peter, James and John and their mode of inspiration. Two hours, first semester. 2:00, Tuesday, Thursday.
- 4. The Gospel History and Literature of the New Testament. A study of the life, teachings, work and significance of Jesus Christ as portrayed in the Four Gospels and as seen against the historic background of modern scholarship. Special emphasis is laid upon the living authority of Jesus and the ruling ideas of the Sermon on the Mount in sharp contrast to Jewish and Pagan religious ideas. Two hours, second semester. 2:00, Tuesday, Thursday.

#### UPPER DIVISION COURSES.

- 5. Hebrew Wisdom Literature. An advanced course in the wisdom books of Proverbs, Ecclesiastes, Job, etc., from the literary point of view. One hour, first semester. 10:50, Tuesday.
- 6. Hebrew Poctic Literature. This course will deal with the great mass of poetic literature found in the Bible, comparing it with other ancient literature. One hour, second semester. 10:50, Tuesday.

Two University Extension Courses are offered for the convenience of Sunday school teachers and others wishing to pursue Bible study in absentia.

## FRENCH.

# Professor Edgar von Fingerlin.

#### LOWER DIVISION COURSES.

- 1. Elementary French. Fraser & Squair's French Grammar. The essentials of grammar, exercises in pronunciation, reading, translation and composition. Dumas' Histoire de Napoleon or equivalent will be read in the second semester. Le Voyage de M. Perrichon. Five hours, both semesters. 8:55, Monday, Tuesday, Wednesday, Thursday and Friday. Course 1 is intended for students in the College who wish to begin the study of French.
- 2. Modern French Reading. Chateaubriand, Hugo, Balzac, Dumas. Syntax, Composition. Open to students who have credit for Course 1. Three hours, both semesters. 2:00, Monday, Wednesday and Friday.

## UPPER DIVISION COURSES.

- 3. Classical French. Selections from Corneille, Racine, Moliere. Advanced French Composition. Two hours, first semester. Open to students who have completed Course 2.
- 4. History of French Literature. A text-book such as Doumic's Histoire de la Literature Française will be used. Also extracts from the seventeenth century literature. Beaumarchais, Le Barbier de Seville. To follow Course 3. Two hours, second semester.
- 5. Teacher's Course. Study of sounds, voice, homonyms, synonyms, word-formation, methods of teaching French, and those niceties of the language in which, as long experience has taught, even advanced students are deficient. While primarily intended for teachers, the course is open also to those who have finished Course 4. Two hours, second semester. Tuesday and Thursday.
- 6. French Lyric Poetry in the Nineteenth Century. G. Walch, Anthologie de Poetes Français Contemporaines. Canfield, Poems of Victor Hugo. Open to those who have completed Course 4. Two hours, second semester.
- 7. French Literature of the Eighteenth Century. A study of the great writers of the eighteenth century (more particularly of the writers of comedies) and of their principal works. Two

hours, both semesters. For graduates and undergraduates. Open to students who have completed Course 6. Courses 6 and 7 will be given in alternate years according to demand.

Major work: 1-7.

#### GRADUATE COURSES.

- 1. French Literature of the Renaissance, based on Darmestetter and Hatzfeld's Le Seixieme Siecle en France, and accompanied by collateral readings and essays in French on works read. Two hours, both semesters.
- 2. French Literature of the Eighteenth Century. A study of the great writers and their principal works. Essays and reports in French on works read. Texts: Brunetiere Doumic, or Pellisier. Two hours, both semesters.
- 3. Old French Reading. Synopsis of Old French Grammar based on Dr. Nonnenmacher's Lehrbuch der Altfrianzosichen Sprache. La Chanson de Roland. Bartseh. Chrestomatic de l'Ancien Francais. Two hours, second semester.
- 4. Historical French Grammar. 1, Phonology. A study of the phonetic laws which have controlled the evolution of popular Latin into French. Darmstetter's or Nyrop's Historical Grammar. All these courses will not be given the same year, but arranged according to circumstances. Admission to any of these courses presupposes an undergraduate study of modern French and for Courses 3 and 4; also of some Latin. In these last courses a reading knowledge of German is very desirable, though not absolutely necessary, for purposes of reference.

## GEOLOGY.

# Professor Gilbert E. Bailey.

#### LOWER DIVISION COURSES.

1. General Geology. The course is designed to present to the student the fundamental principles of Geology. It includes the study of dynamic, structural, stratigraphic and historical geology by means of text-books and lectures. Special attention is given to the geology of California and the Pacific Coast region. Students are given practice in actual field work. Two hours, both semesters. 9:55, Wednesday, Friday.

- 2. Economic Geology. A careful study of the mineral deposits of the State, both metallic and non-metallic. The lectures are supplemented by laboratory work. Two hours, both semesters. Hours to be arranged.
- 3. Mineralogy. A study of the properties, uses and methods of determination of the most important minerals. Laboratory work in blowpipe analysis and chemical tests. Lectures, field and laboratory work. Two hours, both semesters. 10:50, Wednes-

day, Friday.

## GERMAN.

Professor Margaret Graham Borthwick. Assistant Professor, Ruth W. Brown,

#### LOWER DIVISION COURSES.

1. Elementary German. Pronunciation, reading and grammar, with practice in speaking and writing German.

This course includes the essentials of German grammar, with various practical exercises in dictation, composition, translation at hearing, and oral and written reproduction.

During the second semester some interesting short stories and characteristic poems are studied. Five hours, both semesters. 8:55, Monday, Tuesday, Wednesday, Thursday, Friday.

Course 1 is intended for students who enter without German. It covers the ground of preparatory subject 10.

2. Modern German. Modern narrative and dramatic prose, selected poems, and one drama of Schiller or Lessing. Grammar continued, with written and oral exercises. Letter writing and composition once every week. Collateral reading. Three hours, both semesters. 8:00, Monday, Wednesday, Friday.

For students who have had Course 1, or two years of High School German.

3. Scientific and Journalistic German. Rapid reading of scientific prose, also leading articles in German newspapers and magazines. Oral exercises. Two hours, both semesters. 1:50, Tuesday, Thursday.

For students specializing in science. Open to those who have had Course 2, or its equivalent.

#### UPPER DIVISION COURSES.

. 4. Classical Writers. Dramas of Lessing, Goethe and Schiller. Lyrics and Ballads. Lectures and conversation on the life and works of each author studied. One written exercise each week. Three hours, both semesters. 2:00, Monday, Wednesday, Friday.

Open to students who have had Course 2, or its equivalent.

5. Teacher's Course. Review of grammar, with special emphasis on points necessary for teachers. Introduction to Vietor's system of phonetics, with exercises in reading phonetic texts. Practice in pronunciation and in reading aloud. Recitation of poems, and reading of dramas with assigned parts.

Written exercises in grammar and advanced composition. Two

hours, both semesters. 2:00, Tuesday, Thursday.

Required of all students majoring in German. Open to those taking any course beyond 3.

- 6. Schiller. Chronological study of Schiller's life and works Reading of one complete drama, probably Wallenstein, with selections from other dramas and the principal ballads. Collateral readings and practice in composition. Two hours, first semester. 1:05, Monday, Wednesday.
- 7. Goethe. Chronological study of Goethe's life and works. Readings from "Aus meinem Leben," and Goethe's lyrics and dramas. Collateral readings and practice in composition. Two hours, second semester. 1:05, Monday, Wednesday.
- 8. Nineteenth Century Literature. Representative dramas and novels from Grillparzer, Hauptmann, Freytag and Scheffel. Open to students who have had Course 4, or its equivalent. Three hours, first semester. Course 8, alternating with Course 6, will not be given in 1910-1911.
- 9. Goethe's Faust. Interpretation and discussion of both parts, with short historical introduction and collateral reading

of Marlowe's Faust and of the Puppenspiel. Three hours, second semester. 1:05, Monday, Wednesday, Friday. Course 9, alternating with Course 7, will not be given in 1910-1911.

Major Work: Courses 1-9.

## GREEK

## Professor Festus E. Owen.

#### LOWER DIVISION COURSES.

1. Beginning Greek. Burgess & Bonner's Elementary Greek. Book 1 of Xenophon's Anabasis translated. Practice in sight reading from Book II. Pearson's Greek Prose Composition used in connection with the Anabasis. Five hours, both semesters 10:50, Monday, Tuesday, Wednesday, Thursday, Friday.

2. Xenophon's Anabasis. Books II-IV translated. Thorough grammar drill. Daily practice in reading at sight. Pearson's Greek Prose Composition used daily in connection with the text. Five hours, first semester. 9:55, Monday, Tuesday,

Wednesday, Thursday, Friday.

Homer's Iliaa. Books I-IV read and translated, Books V-VI read at sight. Special attention given to Homeric forms, scansion, and mythology. Prose Composition and Grammar review. Five hours, second semester. 9:55, Monday, Tuesday, Wednesday, Thursday, Friday.

(Students planning to major in Greek, but who offer but two years of Greek for entrance, are required to take Course 2, second semester, in addition to courses prescribed for major work.)

- 3. Herodotus. Books VII and VIII; Lucian. Selections for rapid reading. Three hours, first semester. 2:55, Tuesday, Wednesday, Thursday.
- 4. Plato. Apology and Crito with selections from the Phaedo. Lectures on Greek Philosophy and Plato's ethics in relation to modern thought. Three hours, second semester. 2:55 Tuesday, Wednesday, Thursday.

#### UPPER DIVISION COURSES.

5. Xenophon's Memorabilia, Selections. Plato's Gorgias and Protagoras.

A careful study is made through lectures and assigned readings of the history of Greek Philosophy up to Aristotle.

The aim of this course is to introduce the student to the study of Philosophy with reference to its history, its problems and its effect upon human life. *Three hours, both semesters.* 1:05 Monday, Wednesday, Friday.

- 6. Greek Tragedy.
- (a) Aeschylus-Prometheus.
- (b) Sophocles-Antigone.

A careful study of the development of the Greek Drama will be made through lectures and assigned readings. Special attention given to the evolution of religious ideas and to the ethical tendencies in the Dramatists. *Three hours, first semester.* 1:05 Monday, Wednesday, Friday. Omitted 1909-1910.

- 7. Homer. Odyssey, four to eight books. Study of the whole period of epic poetry. Collateral reading from standard histories of Greek literature—Jebb's "Introduction to Homer" and Arnold "On the Translation of Homer. Lectures on Homeric religious, social and political customs. Three hours, second semester. 1:05 Monday, Wednesday, Friday.
- 8. Herodotus and Thucydides. Selections. Three hours, both semesters.
- 9. History of Greek Literature from Homer to Theocritus. This course consists of lectures and recitations based on translations together with papers on assigned topics. Jebb's "Primer of Greek Literature," and "Murray's Ancient Greek Literature," will be used as general guides. The aim is to secure familiarity with the great masterpieces of Greek Literature as well as to gain a comprehensive grasp of the important facts of its history. This course is of special value to those who expect to specialize in, or to teach English Literature. Open to all students. Two hours, both semesters. 8:55 Tuesday, Thursday.

Six hours credit will be given in Course 8 to those students not majoring in this Department. To those majoring in Greek, but four hours credit will be granted.

Major Work: Courses 3 to 9.

## HISTORY.

Professor T. C. Knoles.
Professor R. D. Hunt.
Professor J. M. Dixon.
Assistant Professor Roy Malcom.

#### LOWER DIVISION COURSES.

- 1. English History. With special reference to social and literary development. Text book, supplemented by lectures, reports, and collateral reading. Both semesters. 10:50 Tuesday, Thursday. Dr. Malcom.)
- 2. English History from a literary standpoint. (1) From Cymbeline to King John. (2) From Edward I to Richard III. Text books: Cheyney's English History and Readings in English History. One hour, both semesters. (Dr. Dixon.)
- 3. Greek History. A detailed study of the conditions of ancient Greek life, with special reference to the evolution of political and social institutions. First semester. 8:15 Tuesday, Thursday. (Professor Knoles.)
- 4. Roman History. A series of investigations into the field of the evolution of the city-state of Rome. Lectures, readings, and reports. Second semester. 8:55 Tuesday, Thursday. (Professor Knoles.)
- 5. Mediaeval History. A general survey of the mediaevai period, with special reference to the development of the great institutions, both of church and state. Discussions on Mediaevai philosophic conceptions. Text book, Emerton's "Mediaeval Europe." Lectures, bibliography making, papers. Both semesters. 8:55 Monday, Wednesday, Friday. (Professor Knoles.)
- 6. French Revolution. Open to those students who have studied Course 5 or its equivalent. A series of studies in the field of French institutional life just preceding the outbreak of the revolution. Text book, Lowell, "The Eve of the French Revolution," collateral reading, reports on selected topics. 10:50 Monday, Wednesday, Friday. First semester. (Professor Knoles.)

## UPPER DIVISION AND GRADUATE COURSES.

7. Modern Continental Europe. A course based on Andrews, "Historical Development of Modern Europe." Lectures and collateral reading. Second semester. 10:50 Monday, Wednesday, Friday. (Professor Knoles.)

8. English Constitutional History. For advanced students, prerequisite, Course 1. An examination into the origins and the evolution of the English Constitution. Lectures, reports. Both semesters. Hours to be arranged. (Dr. Malcom.)

9. Colonial History of America. The sources of American life, steps in the unifying process. Lectures and investigations. Both semesters. Hours to be arranged. (Dr. Malcom.)

10. Institutional and Constitutional History of the United States. Large use of the library, studies of cases, lectures, comparisons. Both semesters. 1:05 Monday, Wednesday, Friday. (Professor Knoles.)

11. The Reformation. A course open to advanced students and teachers. First semester. Three hours, to be arranged. (Professor Knoles.)

12. The History of Japan from Legendary Times. Japanese ideals and social customs. The aborigines of the islands of Yezo, Sakhalin and Formosa. New military and industrial Japan. Text book, Knox; "Japanese Life in Town and Country." Two hours, first semester. (Dr. Dixon.)

(b) The Philippines, historically and industrially. Text book, Le Roy, "Philippine Life in Town and Country." Two hours, second semester. (Dr. Dixon.)

13. Pacific Slope History. Special lecture course, with special reference to California. Two hours throughout the year, to be arranged. (Dr. Hunt.)

Major Work: Thirty semester hours.

## ITALIAN.

Professor Edgar M. von Fingerlin.

## LOWER DIVISION COURSES.

1. Grandgent's Italian Grammar. Bowen's First Italian Readings, Goldoni's Il Vero Amico, Grandgent's Italian Composition.

Three hours, both semesters. 11:20 Monday, Wednesday, Friday.

2. Manzoni's I Promessi Sposi. Silvio Pellico's Le Mie Prigioni and other modern writers. Composition. Two hours, both semesters. 1:05 Monday, Wednesday.

## UPPER DIVISION COURSES.

3. Dante, Tasso, Petrarca. Advanced Composition. Lectures on Italion Literature. Two hours, both semesters. Hours to be arranged.

## LATIN.

Professor Roy Edwin Schulz. Assistant Professor Ruth W. Brown. Assistant Professor Hugh C. Willett.

## LOWER DIVISION COURSES.

- 1. Cicero. De Senectute, Tusculan Disputations, Book I. Careful interpretation of the text with practice in reading aloud with proper phrasing and emphasis without translation and in translation at hearing. Three hours, first semester. 9:55 Monday, Wednesday, Friday.
- 2. Horace. The Odes and Epodes. Lectures on the Augustan Age and Horace's contemporaries. Metrical reading, style and subject matter are given special attention. Three hours, second semester. 9:55 Monday, Wednesday, Friday.
- 3. Latin Syntax. A complete review in lectures and exercises of Latin syntax. The exercises are based on Cicero's De Senecture. The course is required of all registered for Course 1. Two hours, either semester. 9:55 Tuesday, Thursday.
- 4. Latin Prose Composition. Special attention is given to sentence structure, word-formation, and synonyms. Two hours, second semester. 9:55 Tuesday, Thursday.
- 5. Latin Comedy. During the semester at least one play of Terence and two of Plautus will be read. Special attention is given to early forms, meter, etc. Lectures on the development of Roman Comedy, on the Roman theater, on the presentation of plays and on Roman Life. Three hours, first semester. 8:55 Monday, Wednesday, Friday.

6. Livy. Selection from the extant books. Lectures on the history and literature of the period of foreign conquest. Three hours, second semester. 8:55 Monday, Wednesday, Friday.

### UPPER DIVISION COURSES.

7. Cicero. Letters. Lectures on the history of the Republic from B. C. 133 with special reference to contemporary events. Two hours, first semester. 8:00 Tuesday, Thursday.

8. Tacitus. Agricola and Germania, or selections from the Annals. Lectures on the history and literature of the early empire. Two hours, second semester. 8:00 Tuesday, Thursday.

- 9. Advanced Latin Prose Composition. Writing of essays and letters in Latin. Translation of passages from English writers. Open only to students who have received a high grade in Course 4. One hour, both semesters. 2:00 Monday.
- 10. History of Latin Literature. Lectures on Latin Literature from Livius Andronicus to Boethius, with the interpretation of selections from all prominent authors. The course does not require a knowledge of Latin, and is open to students of all departments. Major students in the department will be required to do outside reading from text. Two hours, both semesters. 8:55 Tuesday, Thursday.
- 11. Latin Poetry of the Republic. Selections from Lucretius, Catullus, Ovid, Propertius and Tibullus studied largely with reference to thought and artistic form. Two hours, first semester. 2:00 Wednesday, Friday.
- 12. Latin Poetry of the Empire. Selections from Seneca, Martial and Juvenal. Two hours, second semester. 2:00 Wednesday, Friday.
- 13. Teachers' Course. Lectures on the Pedagogical Value of Latin, the work of the four years in the secondary school, the place of Composition, Prosody, History, etc., in the study of Latin; visiting-and reports from secondary school in the vicinity of Los Angeles; practice in teaching in the preparatory school of the University. Prerequisite, Philosophy 1.

Open to Juniors and Seniors. Two hours, second semester. 2:00 Tuesday, Thursday.

Major Work: Thirty semester hours, including Courses 3, 4, 9 and 10.

## MATHEMATICS.

Professor Paul Arnold. Assistant Professor Hugh C. Willett.

#### LOWER DIVISION COURSES.

- 1. Theory of Algebra. A lecture and text book course in which emphasis is placed principally upon the theory and the development of algebra. This course includes a review of elementary algebra, special attention being given to proofs of fundamental laws and principles. Three hours, both semesters. 9:55 Monday, Wednesday, Friday.
- 2. Solid and Spherical Geometry. The fundamental propositions of the Euclidean geometry of space. Three hours, first semester. 8:00 Tuesday, Wednesday, Thursday.
- 3. Trigonometry. Plane trigonometry and its applications, the trigonometry of the right spherical triangle, and logarithms. Three hours, second semester. 8:00 Tuesday, Wednesday. Thursday.
- 4. Algebra. Mathmetical induction, equivalent equations, surds and complex numbers, theory of quadratic equations, simultaneous quadratic and higher equations, ratio, proportion, variation, the progressions and other simple series, inequalities, permutations and combinations, the binomial theorem for any exponent, limits and infinite series, determinants, theory of equations. Two hours, both semesters. 8:55 Tuesday, Thursday (first semester). 8:00 Tuesday, Thursday (second semester).
- 5. Advanced Trigonometry. This course is planned particularly for engineering students, and includes a review of plane trigonometry, as well as a thorough study of the fundamental principles of spherical trigonometry and the application of its formulas to the solution of spherical figures. Prerequisite, Course 3, or entrance trigonometry. Two hours, first semester. 8:55 Wednesday, Friday.
- 6. Plane Analytic Geometry. The analytic geometry of the straight line, the circle, and the conic sections, including a discussion of the general equation of the second degree, and some special examples in higher loci. Five hours, second semester. 8:55 Monday, Tuesday, Wednesday, Thursday, Friday.

7. Analytic Geometry and Calculus. This course is open to students who have taken Courses 1 and 3, and who wish a briefer and less technical treatment of analytic geometry and calculus than is given in other courses required of the engineering students: it includes some study of the history of mathematics. Three hours, both semesters. 10:50 Monday, Wednesday and Friday.

#### UPPER DIVISION COURSES.

- 8. Differential Calculus. Development of the fundamental principles and formulas, applications to various problems in geometry and analysis. Three hours, first semester. 8:00 Monday, Wednesday, Friday.
- 9. Integral Calculus. The general principles of the integral calculus are developed, and the usual applications made to centers of gravity, moments of inertia, and especially to geometry. Three hours, second semester. 8:00 Monday, Wednesday, Friday.
- 10. Advanced Analytic Geometry. A continuation of Course 6 or 7; and also a short course in Analytic Geometry of three dimensions. Three hours, first semester. Hours to be arranged.
- 11. Differential Equations. An elementary course for students who have taken Course 9. Three hours, second semester. Hours to be arranged.
- 12. Analytical Mechanics. The mathematical treatment of statics, kinematics and dynamics. Prerequisite, Courses 8 and 9. Three hours, first semester; two hours, second semester. 10:50 Monday, Wednesday, Friday, first semester; Wednesday, Friday, second semester. (Professor Lawrence.)
- 13. Descriptive Astronomy. A general course, requiring only the mathematics of Courses 1-3. Open to students in the last two years of the college course. Two hours, both semesters. 9:55 Tuesday, Thursday. (Professor Lawrence.)

Major Work: Thirty semester hours.

#### MUSIC.

### Professor Walter Fisher Skeele.

. Students who take harmony and theory, or advanced instrumental or vocal work in the College of Music may be allowed college credit for the same, but the credit shall in no case exceed fifteen semester hours, and will be given only upon the recommendations of the Dean of the College of Music.

### ORATORY.

Professor Beulah Wright. Associate Professor Gertrude Comstock. Associate Professor Elizabeth Yoder. Associate Professor Edna June Terry.

Students taking work in the College of Oratory may be allowed credit in the College of Liberal Arts, not to exceed fifteen semester hours, credits to be given only upon the recommendation of the Dean of the College of Oratory.

- 1. Vocal Expression.
- (a) Principles of expression, voice building and tone placing. Expression of the body. Interpretation of literature from the text. Two hours, either semester.
- (b) Advanced vocal training and bodily expression. Interpretation from modern authors. Kipling, Van Dyke, Stevenson, Maclaren, and others. Two hours, either semester.
  - 2. Public Speaking.
- (a) Extemporaneous work. Preparation and delivery of short speeches such as talks on current public questions, toasts, discussions. Two hours, first semester.
- (b) Extemporaneous work. Preparation of briefs for debate, forensics, argumentations, lectures. Two hours, second semester.
- 3. Oratory. A study of masterpieces of oratory. Text, Sears' History of Oratory. The preparation and delivery of one original oration. Two hours, either semester.

- 4. Bible and Hymn Reading. Vocal Expression of the Bible and Hymns, Voice Building. Text, Curry's Vocal and Literary Interpretation of the Bible. Two hours, either semester.
  - 5. Vocal Interpretation.

Lyric Poems. Training of the Imagination. Studies in Tennyson, Burns, Browning, Wordsworth and others. Two.hours, first semester.

6. Shakespeare. King Lear or Julius Caesar, Midsummer Night's Dream or Twelfth Night. Two hours, second semester. (Tuition for the above courses is payable at the Office of the

College of Oratory.) (See Tuition College of Oratory.)

Provision is made for a special class in the principles of Expression, for those students who enter the college without the required Preparatory School work. This is an elementary course of two hours for one semester; no college credit will be allowed for it.

### PHILOSOPHY.

Professor James H. Hoose, Professor John G. Hill, Professor Thomas B. Stowell.

#### LOWER DIVISION COURSES.

- 1. Psychology. The aim in this subject is to acquaint the student with what is valuable in the investigations in Mental Science. Text books, lectures and original investigations. This course is the required work in Philosophy. Three hours, both semesters. 8:55 Monday, Wednesday, Friday.
- 2. Logic. The elements in this subject as given in Creighton's Logic, with practical exercises. Three hours, first semester. 1:05 Monday, Wednesday, Friday.
- 3. Ethics. Borden P. Bowne's Principles of Ethics, accompanied by lectures, discussions, library references and special inductive and constructive studies in the ethical teachings of Jesus, the great poets and philosophers and autobiographers, ancient and modern; current ethical problems of the day are treated in the light of recent psychology and mental science. The last part of the semester is given to a detailed study of human duties, in-

dividual and social, civic and divine in accord with the rapid moral advance in applied ethics. Prerequisite, Psychology. Two hours, first semester. 9:55 Tuesday and Thursday.

- 4. Theism and the Philosophy of Religion. The aim in this Course is to carefully examine the leading ultimate grounds offered as explanations of reality, and to set forth the theistic ground of a supreme, self-existent, personal Being as the only satisfactory explanation. A clear philosophy of Religion is sought by a sympathetic study of the light which recent science sheds upon the problems of nature, man and mind. Modern Naturalism in its suicidal metaphysical implications and its inferiority to explanation by Personal Idealism is treated. The texts used are Iverach and Bowne. Prerequisite, Psychology. Two hours, second semester. 9:55 Tuesday and Thursday.
- 5. The Evidences and Philosophy of Christianity. The various evidences for the truth of Christianity are canvassed. It is shown how the completion of the moral and religious process in man demands Jesus Christ; and how Christianity is the key to life's philosophy, answering the question: "How can we best explain the mysteries of life?" The many apologetic questions troubling the probing student touching ancient and modern difficulties concerning Christianity are vigorously considered. The text book work is supplemented by frequent lectures and library work. Two hours, throughout the year. 9:55 Wednesday and Friday.

#### UPPER DIVISION AND GRADUATE COURSES.

- 6. Metaphysics. This is an investigation into the determination of Being. For Seniors. Two hours, second semester. 10:50 Wednesday and Friday.
- 7. Aesthetics. A study of Beauty and its influences upon the Feelings, the Intellect, and the Will. Two hours, first semester. 8:55 Tuesday and Thursday.
- 8. History of Philosophy. Weber's History of Philosophy, covering Ancient and Modern Philosophy. Three hours, both semesters. 8:00 Monday, Wednesday, Friday.

#### GRADUATE COURSES.

- 9. Philosophy of Civilization. A course that investigates the Forces and Forms which have built up civilization. The study touches Philosophy of History.
- 10. Oriental Philosophy. An inquiry into the Forms of Living that have characterized Oriental Institutions.
  - 11. Philosophy of Kant. Select portions of Kant.
  - 12. Philosophy of Hegel. Select parts of his Philosophy.
- 13. Philosophy of Governments. An inquiry into the forms which sovereign power has assumed in the progress of historical governments. The study touches Philosophy of History.

### POLITICAL SCIENCE.

Professor T. C. Knoles. Assistant Professor Roy Malcom.

#### UPPER DIVISION COURSES.

- 1. Elements of Political Science. Historic origin of political science; theories of the state; nature of sovereignty; the structure and province of government. With lectures, readings and student reports. Three hours, first semester. (Dr. Malcom.) Hours to be arranged.
- 2. International Law. The nature, sources and principles of international law, the influence of Christian civilization upon rules and the contribution of the United States to its development. Three hours, second semester. (Dr. Malcom.) Hours to be arranged.
- 3. Parties and Governments in Continental Europe. A series of studies in the field of the comparison of the various methods of government in actual practice in the various states of continental Europe. Text book, Lowell, "Parties and Governments in Continental Europe." The text book is supplemented by a full reading course, and by many reports upon detailed topics. Three hours, second semester. (Prof. Knoles.) Hours to be arranged.

# College of Liberal Arts

### PHYSICAL EDUCATION.

Dean Cromwell, Director of Men's Athletics.

Elsie Vanderpool, Director of Women's Gymnasium.

Edna Cocks, Assistant in the Women's Gymnasium.

- 1. Systematic class work in gymnastics for men. The work consists of vigorous drill with dumb-bells, Indian clubs and wands, besides progressive graded work on the various pieces of gymnastic apparatus. Required of all first-year students. Four hours, both semesters. (Director Cromwell.)
- 2. An advanced course for men combining light and heavy gymnastics. Open to those who have completed Course 1. Four hours, both semesters, (Director Cromwell.)
- 3. Outdoor sports and light gymnastics for women; tennis, basket ball, volley ball, light work on the ladies' athletic field; recreative games and walking. Two hours, both semesters. (Miss Vanderpool.)
- 4. Systematic class work in gymnastics for women. The work consists of drill with dumb-bells, Indian clubs, wands and rhythmical exercises for grace and harmony of movement. Two hours, both semesters. (Miss Vanderpool.) Women's gymnasium classes meet Tuesday and Thursday at 9:55, 10:50 and 1:05. Women's tennis classes meet Monday and Wednesday at 8:00, 8:55, 9:55, 10:50, 1:05 and 2:00. Basket ball class for women, Monday and Wednesday at 3:50. Walking Club meets on Tuesday and Thursday, 3:50. The first Tuesday in each month the plunge is reserved at Bimini Baths for all gymnasium girls.

Men's classes meet Monday, Tuesday, Wednesday, Thursday, at 2:00, 2:55 and 3:50.

Note.—Four semester hours in Physical Education is the required and also the maximum number for an A.B. degree.

### PHYSICS.

Professor Arthur W. Nye. Assistant Professor J. C. Gaylord.

#### LOWER DIVISION COURSES.

1. General Physics. Electricity and Heat. Lectures 1:05 Monday, Tuesday, Wednesday. Laboratory arranged P.M. Four hours, first semester. (Nye.)

2. General Physics. Mechanics and Light. Lectures 1:05 Monday, Tuesday, Wednesday. Laboratory arranged P.M. Four

hours, second semester. (Nye.)

These courses are open to all who have completed preparatory physics and trigonometry. They are intended to give the student a thorough grounding in the important laws and principles, together with their proofs and applications. The work is also of such a character as to form a basis for further work in special branches for students of engineering. Instruction is given by three periods of lecture and class-room work and three periods of laboratory work per week.

- 3. Mechanics. An advanced laboratory course continuing Course 1 may be taken concurrently with it. Experiments are made along such lines as moment of inertia, uniformly accelerated motion, modulus of rigidity, force of gravity, etc. Four periods of laboratory work per week, with occasional lectures. Two hours, either semester. Hours to be arranged. (Nye.)
- 4. Shop Work. Instruction in the use of wood and metal working tools and machinery, including cutting, filing, drilling, tapping, polishing, screw cutting and elementary lathe work. Two or four periods in laboratory, one or two hours, either semester. Hours to be arranged.
- 5. Applied Electricity. A course in the principles and applications of electricity. Prerequisite, Physics 1. Two hours, second semester. 9:55 Tuesday, Thursday. (Gaylord.)

#### UPPER DIVISION COURSES.

6. Electrical Measurements. A laboratory course in which the theory and methods of exact electrical determinations are taken up, including the determination of resistance by various

methods, galvanometer constants, measurement of current and electromotive force, insulation tests, hysteresis and permeability tests, calibration of instruments, use of condensers, measurement of induction, etc. Six periods per week. Two hours, first semester. 1:05-3:50 Tuesday, Wednesday. (Gaylord.)

- 7. Advanced Heat. A laboratory course consisting of work of the nature set forth in Millikan's "Mechanics, Molecular Physics, and Heat." Four periods in the laboratory with occasional lectures. Hours to be arranged. Two hours, either semester. (Nye.)
- 8. Advanced Light. A laboratory course involving considerable work with the spectroscope and photometer. Hours and credits to be arranged. (Nye.)
- 9. Mechanism. Mechanics of link motions, cams, quick-return motions, etc. Belts and rope drive. Graphical solutions of mechanical movements and forces. Gearing. Two hours, first semester. 8:00 Tuesday, Thursday. (Gaylord and Nye.)

# SPANISH.

Professor Katherine T. Forrester.
Assistant Ester Huet y Ferrat.

#### LOWER DIVISION COURSES.

1. Elementary Spanish. During the first semester special stress is laid on foundation work. A thorough drill is given in pronunciation, reading and writing. Conversation is given from the beginning. Grammatical forms, especially regular verbs, are learned.

During the second semester besides this, short stories by prominent Spanish authors are read and translated. Five hours, both semesters. 8:55 Monday, Tuesday, Wednesday, Thursday, Friday.

2. Advanced Spanish. Prose Composition on practical subjects is given, using Ramsey's Grammar as a guide. Short stories are read and discussed in class. Letters and original compositions are given from time to time. Collateral reading of novels and drama. Reviews of same written in Spanish. Three hours, first semester. 9:55 Monday, Wednesday, Friday.

3. Conversation from text book, and articles taken from Spanish newspapers are given. Two hours, each semester. 9:55 Tuesday, Thursday.

#### UPPER DIVISION COURSES.

- 4. Advanced Reading and Composition. Reading from Gil Blas and Don Quixote are studied with a view to familiarizing the student with typical Spanish characteristics in literature Outside reading of short novels. Reviews written in Spanish. Continuation of Grammar in connection with advanced exercises in Composition. Three hours, second semester. 9:55 Monday, Wednesday, Friday.
- 5. Conversation. Continuation of Spanish 3. Two hours, second semester. 9:55 Tuesday and Thursday.
- 6. Contemporary Novels and Drama. The work of important novelists, such as Alarcón, Valdes, Pardo, Bazán, Valera, Galdós, are read and reviewed. Conversation based on stories, read to the class. Three hours, first semester. 10:50 Monday, Wednesday, Friday.
- 7. Modern Novels, Drama and Poetry. A great deal of reading is done both in the class and as collateral work. The Spanish viewpoint is brought out and the life of the people studied through their literature. Discussions are carried on in Spanish. Three hours, second semester. 10:50 Monday, Wednesday, Friday.
- 8. Classical Spanish. Reading from Cervantes, Lope de Vega and Calderon. Picaresque novels and plays of Capa y Espada taken up. Short lectures given in Spanish on early periods of Spanish literature. Two hours, each semester. 10:50 Tuesday and Thursday.
- 9. Lectures on Later Periods of Spanish Literature. Reference reading in Fitz Maurice-Kelly and Tichnor. Forces which led to development in certain directions are pointed out. Much collateral reading is done. Two hours, second semester. 10:50 Tuesday and Thursday.

### ENGINEERING DRAWING.

Professor Arthur W. Nye. Assistant Professor Van Zandt.

1. Drawing. Review of projection and developments, lettering, blueprinting, machine drawing and office practice. Lectures and draughting. Six hours, first semester. 9:55 and 10:50 Tuesday, Thursday. (Nye.)

2. Drawing. Conventional signs and symbols, topographical maps, tinting and shading. Six hours, second semester. 9:55

and 10:50 Tuesday, Thursday. (Nye.)

- 3. Descriptive Geometry. Lectures and drawing, including representations of lines, surface and solids, with their intersections, tangencies and developments; shades and shadows, linear perspective and stereotomy. One hour lecture. Four hours drafting. Hours to be arranged. (Van Zandt.)
- 4. Machine Design. Advanced course in mechanical and electrical design; detailing, working drawings of complicated machine details, study of standard commercial machine parts, shop practice, strength of parts, use of tables, formulae and slide rule, gearing, estimating, specifications, structural iron and steel, lectures and practice. Two hours class. Three hours drafting, second semester. Class Drafting, 1:05-3:50 Thursday. (Nye.)

### CIVIL ENGINEERING.

Professor Charles W. Lawrence.
Assistant Professor Jerome G. Van Zandt.
Field Work Assistant W. E. Jessup.
Field Work Assistant R. W. Clark.
Field Work Assistant S. H. Clark.
Field Work Assistant L. N. McClellan.

The great industrial development of recent years in every part of the United States has created a large demand for trained Civil Engineers. The course in Civil Engineering has been made quite broad in order to meet this demand, by providing a sufficient foundation for the wide range of practice now included under Civil Engineering.

Very few college students know in what part of this wide field their life work will lie. Because of this, and the great difficulty of mastering fundamentals during the stress of professional work, it has seemed best to provide a broad university preparation and to defer specialization to the period of active employment.

The course is designed to give a practical as well as theoretical training. Nearly as much time is spent in the drawing room, laboratory, and field, as in the lecture room.

By consulting the schedule following it will be seen that considerable time is devoted to Mathematics, English, Modern Languages, and Sciences. Of the more technical work, the Field Engineering is given very full treatment in lecture room, office and field

In the third year Theoretical Mechanics is' thoroughly developed and forms the basis for the designing and construction which occupies the remainder of the course. The importance of correct methods of thought and practice is constantly inculcated.

A very large amount of important Engineering work which is greatly diversified by the proximity of harbors, mines, irrigation and water supply projects, several trans-continental railway terminals, and a very extensive electric power, and interurban railway system, is continually going on in the vicinity of Los Angeles. Students in this Department, accompanied by Instructors, are required to inspect much of this work, and to present written reports on what they have seen.

## REQUIRED COURSE IN CIVIL ENGINEERING.

### FIRST YEAR.

### First Semester.

	Lab.	Class
	Hours.	Hours.
Math., 4, 5—Alg. and Trig		4
Chemistry, 2—Qual. Anal.		3
Chemistry, 2a		••••
Civil Engr., 1—Surveying Theory		2
Civil Engr., 2-Field Work	6	
Engr. Drawing, 1		
English A., 1		3

Second Semester.	Lab.	Class Hours.
Math., 6—Analytical Geom		Hours.
Chemistry, 3		3
Chemistry, 3a	6	
Civil Engr., 1		2
Civil Engr., 2		••••
Engr. Drawing, 2		
English, A1		3
SECOND YEAR.		
First Semester.		
Math., 8-Differential Calculus		3
Geology, 3—Mineralogy		2
Eng. Drawing, 3—Descrip. Geom		1
Civil Engr., 13—Materials		3
Physics, 1—Elec. and Heat	3	3
French or Spanish		5
. Second Semester.		
Math., 9—Int. Calculus		3
Physics, 4—Shop	. 2	****
Geology, 3		2
Civil Engr., 3—Higher Surv	. 3	1
Engr. Drawing, 3		1
Physics, 2—Mech. and Light	. 3	3
French or Spanish		5
THIRD YEAR.		
First Semester.		
Civil Engr., 7—Anai. Mech		2
Civil Engr., 8—Mech. of Materials		3 2
Civil Engr., 15—Graph. Statics		1
Civil Engr., 4—R. R. Engr. Theory		2
Civil Engr., 5—R. R. Engineering Practice	 . 6	4
Elect. Engr., 1—General		 5
Thermodynamics		2
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### Second Semester.

Civil Engr., 7	****	2
Civil Engr., 8		3
Civil Engr., 16—Stresses	***	3
Elec.t Engr., 5—Steam Engr.		3 -
Civil Eng., 9—Hydraulics		3
Civil Engr., 6—R. R. Economics		2
Civil Eng., 18—Struct. Design	6	****
FOURTH YEAR.		
First Semester.		
Civil Eng., 18—Struct. Design	6	1
Civil Engr., 15—Foundations		2
Geology, 1	-	2
Math., 10—Astronomy		2
Civil Engr., 17—Engr. Lab.		
Civil Engr., 11—Water Supply		2
Civil Engr., 12—Sanitary Engr.		2
Civil Engr., 10-Irrigation Engineering		1
Civil Engr., 23—Thesis		. 1
Second Semester.		
Civil Engr., 18	4	1
Civil Engr., 20—Tunneling, Mining		1
Geology, 1		2
Math., 10		. 2
	3	1
Civil Engr., 22—Contracts and Specifications		2
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### COURSES IN CIVIL ENGINEERING.

Civil Engr., 19—Highway Engr.

# Surveying and Geodesy.

1. Surveying. An elementary course including use and care of surveying instruments and the methods of making land surveys; measuring angels with the transit; leveling for profiles; establishing a meridian with solar compass or solar attachment. Two hours, throughout the year. 9:55 Monday, Tuesday.

- 2. Surveying Field Work. The practical adjustment of surveying instruments; the proper method of keeping clear field notes, and the working of field problems with chain, tape, level, plane table, transit, compass, etc. The work in the drawing room consists of platting the field notes and making profiles and maps. Six periods, throughout the year. Course 1 to be taken concurrently. 2:00-4:30 Wednesday, Thursday, Friday; 8:30-11:00 Saturday.
- 3. Higher Surveying. Topographical surveys with plane table and stadia, city surveys, mine surveys, measurement of base lines, determination of meridian and latitude. Three hours field work and one lecture period per week. Prerequisites, Courses 1 and 2.

### Railroad Engineering.

- 4. Railroad Engineering. A course including the theory of curves, switches and sidings; the making of reconnoissances, and preliminary and location surveys; the computation of earthwork and determination of structures, and making final estimates of cost. Two hours, first semester. 9:55 Tuesday, Thursday. Prerequisites, Courses 1 and 2.
- 5. Railroad Engineering Field and Office Work. Practice in laying out curves, and making complete surveys for a short line of railway and doing the office work. Eight periods, first semester. 1:05-4:30 Monday, Tuesday.

Course 5 must be taken concurrently.

- 6. Economics of Railway Location. The influence of grades, curves, tunnels, rise and fall, etc., is studied with regard to effect upon cost and operating expenses of steam and street railways. Two hours, second semester. 9:55 Tuesday, Thursday. Prerequisite, Course 4.
- 7. Analytical Mechanics. The mathematical treatment of statics, kinematics and dynamics, including determination of center of gravity, moment of inertia, centrifugal force, etc. Three hours, first semester; two hours, second semester. Prerequisite, Mathematics 8 and 9. 10:50 Monday, Wednesday, Friday, first semester; Wednesday, Friday, second semester.
- 8. Mechanics of Materials. A mathematical course in resistance and elasticity of materials, stresses and strains, shearing, flexure, beams, columns, shafts. Two hours, first semester; three

hours, second semester. Course 7 must be taken concurrently. 10:50 Thursday, Friday, first semester; Monday, Tuesday, Thursday, second semester.

- 9. Hydraulics. Hydraulic pressure, strength of pipes, flow of liquids through pipes and orifices and over weirs, losses of head, flow of water in open channels, dams of masonry and earth, hydraulic motors and machinery. Three hours, second semester. 8:55 Monday, Wednesday, Friday. Prerequisite, Course 8.
- 10. Irrigation Engineering. Diversion, conveyance and application of water for irrigation. Design of reservoirs, dams, and diversion works. One hour, first semester. Prerequisite, Course 9.
- 11. Water Supply. Determination of quantity and quality of supply, water purification, and conservation, design of a system. Two hours, first semester. Prerequisite, Course 9.
- 12. Sanitary Engineering. Drainage of buildings, treatment and disposal of sewage, sewer systems for cities. Two hours, first semester. Prerequisite, Course 9.

### Engineering Construction.

- 13. Materials of Engineering. A study of the manufacture and properties of stones, cements, concretes, timber, iron, steel, etc., with special attention to determination of safe working stresses. Three hours, first semester. 8:00 Monday, Wednesday, Friday.
- 14. Foundations. The foundation of bridges and buildings, coffer dams, piers, pile-driving, caissons, masonry and reinforced concrete arches, retaining wall. Two hours, first semester. Prerequisite, Course 8.
- 15. Graphical Statics. The graphical determination of the stresses in engineering structures. Three periods, first semester 9:55 Monday, 1:05-3:50 Thursday. Course 7 must be taken concurrently.
- · 16. Stresses in Framed Structures and Arches. The analytical and graphical methods applied to determining stresses in roof and bridge trusses, and masonry arches. Three periods, second semester. 9:55 Monday, Wednesday, Friday. Prerequisite, Course 15.

- 17. Engineering Laboratory. Testing of engineering materials. Three periods, first semester. Prerequisite, Course 14.
- 18. Structural Design. Theory for and practice of making complete designs for steel bridges, roofs, and other structures. Lectures, drawing and computing. One hour lecture, four hours draughting throughout the year. Prerequisite, Courses 8, 13 and 16.
- 19. Highway Engineering. Roads and streets of broken stone, paved and oiled roads, location of new roads. Two hours, second semester.
- 20. Tunneling and Mining. Excavation, lining, ventilation and drainage of tunnels and mines; sinking shafts, pumping and hoisting. One hour, second semester. Prerequisite, Course 11.
- 21. Reinforced Concrete. Theory, design and construction of concrete and reinforced concrete structures. Two periods, second semester. Prerequisites, Courses 7 and 8.
- 22. Contracts and Specifications. A synopsis of the law of contracts as applied to Engineering construction and a study of typical contracts and specifications. The course includes riparian rights, boundary lines, survey descriptions, etc. Two hours, second semester.
- 23. Thesis. A study of some special engineering problem or an independent investigation by the student. The subject must be approved by the professor in charge of the department of Civil Engineering and by the professor who would have immediate direction of the work proposed, not later than November 1st of the Senior year. It must be completed and submitted by June 1st of the same year. One hour, first semester.

### ELECTRICAL ENGINEERING.

Professor Arthur W. Nye.
- Assistant Professor J. C. Gaylord.

The courses offered in this department are designed to fit young men to engage in the operation and production of electrical apparatus, also in the application of electricity to the Arts and Sciences.

During the Freshman and Sophomore years there is laid a

broad foundation, consisting of Physics, Mechanics, Chemistry, Surveying and Language. During the Junior and Senior years special studies in electricity and applied electricity are pursued. These involve the theory of electricity and magnetism, with application to direct current machines and measuring instruments, the theory of alternating currents and alternating machinery and apparatus, comprising alternators, synchronous and induction motors and rotary convertors. Courses are also given in Electrical Distribution and Transmission, Lighting and Power plants.

The work of the Engineering Laboratories is co-ordinate with the lecture and class room and aims to give a practical knowledge of electrical measurements and the handling of electrical machinery.

Southern California, in its present state of rapid development, offers exceptional opportunity to the hydraulic and electrical engineer. The work of the University is splendidly supplemented by the large amount of work under construction. The engineers and superintendents in charge of these have been very courteous in aiding the classes on their various trips of inspection. The various power and electric plants in and about Los Angeles afford excellent examples of electric development of high tension and power transmission not surpassed by any other in the United States. Various excursions to these plants and lectures by superintending engineers are some of the features enjoyed by the students of this department.

# REQUIRED COURSE IN ELECTRICAL ENGINEERING.

# FIRST YEAR.

First Semester.		Class
	Hours.	Hours.
Math., 4, 5—Algebra, Trig		5
Engr. Drawing, 1	6	******
Chemistry, 2—Qual. Anal		3 ·
Chemistry, 2a	6	
English, Á1		3
Civil Engr., 1—Surveying, Theory		2
Civil Engr., 2—Surveying, Field	6	

Second Semester.	Lab.	Class
		Hours.
Math., 6-Analytical Geometry		5
Engr. Drawing, 2	6	
Chemistry, 3		· 3
Chemistry, 3a		
English, A1		3
Civil Engr., 1		2
Civil Engr., 2	6	****
SECOND YEAR.		
First Semester.		
French or Spanish		5
Physics, 1—Elec. and Heat	3	3
Math., 8—Calculus		3
Engr. Draw., 3—Descrip. Geom		1
Physics, 4—Shop		
Civil Engr., 13—Materials		3
Second Semester.		
French or Spanish		5
Physics, 2—Mech. and Light		3
Math., 9—Int. Calculus		3
Elecf. Engr., 11—Shop		3
Physics, 4—Shop		
Physics, 5—Electricity		2
THIRD YEAR.		
First Semester.		
Elect. Engr., 1—General		5
Physics, 6—Elect. Measurements		••••
Civil Engr., 7—Anal. Mech.		3
Civil Engr., 8—Mech. of Mater		2
Physics, 9—Mechanism		2
Elect. Engr., 4—Thermodynamics		3

### Second Semester.

Second Semester.		
Elect. Engr., 1		5
Elect. Engr., 2—Dynamo Lab.	6	
Civil Engr., 7		2
Civil Engr., 8		3
Elect. Engr., 5—Steam Engr.		2
Elect. Engr., 6—Excursions	3	
Engr. Drawing, 4—Mach. Design	3	2
FOURTH YEAR.		
First Semester.		
El C C C		-
Elect. Engr., 3—Alter. Currents		5
Elect. Engr., 7—Dyn. Lab., A. C. Mach		
Elect. Engr., 8—Elect. Design		2
Economics, 1		3
Elect. Engr., 9—Engr. Lab.		
Elect. Engr., 12—Thesis	3	••
Second Semester.		
Elect. Engr., 3		5
Elect. Engr., 7	9	
Elect. Engr., 6—Excursions		
Elect. Engr., 10—Commercial Elect. Engr		2
Economics, 2		3
Civil Engr., 9—Hydraulics		. 3
Elect, Engr., 12		

# COURSES IN ELECTRICAL ENGINEERING.

- 1. Dynamo Electric Machinery. This course comprises a study of the theory and operation of direct current apparatus of all kinds, motors, generators, power plant installations, transmission lines, storage batteries, lamps, controllers, etc., methods of testing and operation, theory of commutation and speed control. Alternating currents are taking up briefly towards the end of the year. Junior Year. Five hours, both semesters... 8:55 Monday, Tuesday, Wednesday, Thursday, Friday. (Nye, Gaylord.)
- 2. Dynamo Laboratory. Study is made of the performance of direct current machines by means of their characteristic

curves; efficiency, regulation and heat tests are run; and various methods of operating generators and motors and their auxiliary control apparatus are studied. Junior Year. Six periods. Second semester. 1:05-3:50 Monday, Tuesday. (Gaylord.)

- 3. Alternating Currents. A mathematical study of theory and applications to generating, transforming, utilizing machines. Senior Year. Five hours, both semesters. 10:50 Monday, Tuesday, Wednesday, Thursday, Friday. (Gaylord, Nye.)
- 4. Steam Engineering. Boilers, combustion, fuels, laws of gases and heat conduction, corrosion and scale, testing, flow of steam in pipes, etc. Practical apparatus as used in steam power plants. Thermodynamics, expansion of gases, heat cycles, temperature-entropy diagrams and pressure volume diagrams applied to gas, hot air and steam engines. Three hours, first semester. 8:00 Monday, Wednesday, Friday. (Nye.)
- 5. Steam Engineering. A study of various types of steam engines, indicator cards, valve motions and diagrams, multiple expansion, design of parts. General layout of plants. Two hours, second semester. 9:55 Monday, Wednesday. (Nye.)
- 6. Excursions. Trips to various power plants and factories with a view to observing methods and processes. Written reports required of students.
- 7. Dynamo Laboratory. Tests and study of alternating current apparatus. Senior Year. Six periods. Both semesters. (Gaylord.)
- 8. Electrical Design. Study of types of electrical machinery; calculations and detail drawings. Senior Year. Two periods class, three periods drafting. First semester (Gaylord.)
  9. Engineering Laboratory. Testing of strength of materials,
- 9. Engineering Laboratory. Testing of strength of materials, engine and boiler efficiencies, etc. Senior Year. Three periods.
- 10. Transmission and Station Equipment. A study of commercial problems of electric power generation and distribution, and of standard polyphase machinery. Two hours, second semester.
- 11. Workshop Mechanics. A consideration of the materials of machine construction, the methods of working them and workshop appliances. Lectures, no credits, but required of all graduates in Electrical Engineering. (Nye, Gaylord.)
- 12. Thesis. Original investigation and study of some special problem.

### MINING AND CHEMICAL ENGINEERING.

### Professor Laird J. Stabler.

The University is at present offering two years of the course in Mining and Chemical Engineering. The work, as outlined, gives thorough training in the fundamental subjects of mathematics, chemistry, physics, drawing and the elements of engineering. The foundation laid in the two years prepares the student to enter any of the good mining colleges, and complete the work of the Junior and Senior years, specializing in Mining and Metallurgy.

# COURSES IN MINING OR CHEMICAL ENGINEERING.

### Freshman Year.

		Second
	Semester.	Semester.
Math., 4, 5, 6	5	5
Chem., 2, 2a, 3, 3a	5	5
Civil Engineering, 1	2	2
Civil Engineering 2 (Field Work)	3	3
Engineering Drawing, 1, 2	4	4
Sophomore Year.		
Math., 8, 9 (Calculus)	4	4
Geology, 3—Mineralogy	2	, 2
Eng. Drawing, 3—Descriptive Geom	1	1
Eng. Drawing, 3	4	4
Physics, 1, 2	4	4

Chemistry, 4, 8 .....

# SUMMER SESSION OF 1909

### COLLEGE OF LIBERAL ARTS

The Summer Session of the University for 1909 was held at the College of Liberal Arts, Monday, June 28th, to Saturday, August 7th.

Courses in the Summer School are designed to meet the needs of the following classes of students:

- 1. Undergraduates and graduates of a College or University.
- 2. -Teachers, including those in public schools, private schools and other institutions of learning.
- 3. Auditors, those desiring to hear courses of lectures or occasional lectures (not for credit).
- 4. Preparatory and Special Students who are deficient in entrance credits or who wish to make a study of some particular subject.

For entrance no formal examinations are required. Students will be admitted to such courses only as their previous training has prepared them to pursue profitably.

Opportunity will be given those who are compelled to enter late to make up their work.

Instruction will be given by the regular members of the University faculty and by special lecturers from other institutions. The University library, and the physical and biological laboratories, with their new equipment, are open to the students in the Summer School.

Los Angeles enjoys, during the summer months, an equable climate of pleasant days and cool nights, affording a rare opportunity of combining recreation and study. Attractive mountain, beach and island resorts are within a few hours of the city by electric car lines.

### COURSES OF INSTRUCTION, SUMMER SESSION 1909.

# DEPARTMENT OF BIOLOGY.

Professor Ulrey. Assistant Professor Life.

- 1. General Botany (College).
- 2. General Zoology (College).
- 3. Systematic Botany.
- 4. Systematic Zoology.
- 5. General Botany (Preparatory).
- 6. Special Courses (for making up deficiencies in Botany and Zoology).

# DEPARTMENT OF CHEMISTRY. Professor Stabler.

- 1. Elementary Chemistry.
- 2. Qualitative Analysis.
- 3. Organic Chemistry.

# DEPARTMENT OF ENGLISH. Professor Dixon.

- 1. The History of the English Language.
- 2. Tennyson's In Memoriam.

# DEPARTMENT OF FRENCH. Professor Von Fingerlin.

- 1. Elementary French.
- 2. Modern Authors.
- 3. Classical French.

# DEPARTMENT OF ECONOMICS AND SOCIOLOGY. Professor Hunt.

- 1. Principles of Economics.
- 2. Labor Problems.

### DEPARTMENT OF GERMAN.

### Professor Von Fingerlin.

- 1. Elementary (Preparatory). Second semester.
- 2. Modern Stories and Plays (Preparatory). Second semester.
  - 3. Schiller, Drama and Ballads.

### DEPARTMENT OF HISTORY.

Professor Knoles. Professor Dixon. Professor Hunt.

- 1. American History (Professor Knoles).
- 2. Civics (Professor Knoles).
- 3. Mediaeval History (College) (Professor Knoles).
- 4. English History in English Literature, with special attention to Shakespeare's plays (Professor Dixon).
  - 5. Political Development of Modern Europe (Professor Hunt).
- 6. History of California and the Pacific Slope (Professor Hunt).

### DEPARTMENT OF ITALIAN.

Professor Von Fingerlin.

- 1. Elementary Italian.
- 2. Modern Authors.
- 3. Classical Italian.

### DEPARTMENT OF LATIN.

### Assistant Professor Willett.

- 1. Elementary Latin (2d semester).
- 2. Caesar (1st semester).
- 3. Caesar (2d semester).
- 4. Cicero's de Senectute and Horace's Epodes.
- 5. Latin Comedy.

### DEPARTMENT OF MATHEMATICS.

### Professor Arnold.

- 1. Elementary Algebra.
- 2. Advanced Algebra.
- 3. Geometry.
- 4. Trigonometry.
- 5. Analytical Geometry.

### DEPARTMENT OF PHYSICS AND ENGINEERING.

### Professor Nye.

- 1. Elementary Physics (Preparatory) 1st semester.
- 2. Elementary Physics (Preparatory) 2d semester.
- 3. General Physics, Electricity and Heat.
- 4. General Physics, Mechanics and Light.
- 5. General Physics, Advanced Mechanics.
- 6. General Physics, Advanced Electricity.
- 7. General Physics, Teacher's Course.
- 8. Electrical Engineering.
- 9. Elementary Mechanical Drawing.
- 10. Engineering Drawing (1st semester).
- 11. Engineering Drawing (2d semester).

# DEPARTMENT OF PHILOSOPHY AND EDUCATION.

### Professor Hoose.

- 1. Psychology. The nature and forms of mental activities.
- 2. Education. Principles of teaching and school management.

### DEPARTMENT OF SPANISH.

### Lecturer Glen H. Spangler.

- 1. Elementary Spanish.
- 2. Advanced Spanish.
- 3. Survey of Spanish Literature.

# COLLEGE OF PHYSICIANS AND SURGEONS

### **CALENDAR**

1910.

September 14, 15, 16Examination for Entrance and Advanced Standing in the Session of 1910-1911.
September 19First Semester begins (Session of 1910-1911.
November 24, 25Thanksgiving Vacation.  December 23Christmas Vacation begins.
1911.
January 2. Second Semester begins.  February 22. Washington's Birthday.  May 22. Final Examinations begin.  June 15. Commencement.

### THE COLLEGE OF PHYSICIANS AND SURGEONS.

In 1885 the Trustees of the University of Southern California empowered one of their members, Dr. J. P. Widney, to take steps toward the organization of a Department of Medicine. That year the medical school was founded, and in the Fall instruction was offered in limited quarters on Aliso street. From the beginning the aim has been to raise the standard of medical education, and in this connection it is of interest that this institution was among the first to adopt a three-year course.

Ten years after its organization the Medical Department came into possession of more extensive quarters on Buena Vista Street, and in these buildings instruction was carried on until June, 1909. In August of 1909 the College of Physicians and Surgeons consolidated with the University of Southern California, and the work of the Medical Department is now being carried on at 516 East Washington Street.

The College of Physicians and Surgeons was founded in 1904. Its main building, consisting of three stories, is commodious and equipped with modern appliances and apparatus. The policy of the College of Physicians and Surgeons has been characterized by thoroughness of method and by an attempt to place medical education upon a higher plane.

The Trustees of the University of Southern California and of the College of Physicians and Surgeons felt that by combining their resources, clinical facilities and teaching staffs, a broader and more thorough training would be possible than could be offered by either institution alone, and that by their coalescence the best ends of medical instruction in Southern California would be furthered.

The College of Physicians and Surgeons is an integral part of the University of Southern California. Its government is vested in the Board of Trustees of the University and in the Judicial Council and Senior Faculty of the Medical Department, as provided in the articles of incorporation of the University.

## ADMISSION REQUIREMENTS

### ADMISSION TO FRESHMAN CLASS.

Men and women are admitted on equal terms. Requirements for admission are as follows:

- (a) A Bachelor's Degree in Arts or Science from an approved college.
- (b) A diploma from an accredited high school, normal school or academy, whose course extends over four years, embracing not less than two points (two years) of Latin, two points (two years) of English, one point (one year) of History, one point (one year) of Physics, one point (one year) of Inorganic Chemistry, and six further credits in Science, Language, Literature or History, making a total of fifteen points.

A student may be allowed to enter the Freshman class with not more than three points of conditions. These conditions may be made up of either required or optional subjects.

Should a candidate for entrance to the Freshman class be unable to present credentials in the subjects above enumerated,

it will be necessary to take an examination conducted by an appointee of the California State Board of Medical Examiners. A representative of the Board resides in Los Angeles and is prepared at any time to examine a non-accredited candidate for admission.

The credits required for matriculation are as follows:

A. REQUIRED: (16 Points).	Points.
Mathematics—(minimum, 2 years; maximum, 3 years)	4
Algebra and Plane Geometry.  English—(minimum, 2 years; maximum, 4 years)	4
(a) English Grammar;	
(b) Rhetoric and Composition.	
Latin—(minimum, 2 years; maximum, 4 years)	4
(a) Latin Grammar;	
<ul><li>(b) Latin Prose Composition;</li><li>(c) Reading four books of Caesar or equivalent.</li></ul>	
Physics—(1 year)	2
With laboratory work,	
History—(minimum, 1 year; maximum, 3 years)	2
Including Civics and Political Economy.	
7D . 1	_
Total required	16
B. OPTIONAL: (14 Points).	
English Language and Literature—(2 years)	4
Only if taken after the required English.	2
Language—German, French, Spanish or Greek (4 years)  Not less than one year in any one.	4
Advanced Mathematics—Solid Geometry and Trigonon	ietrv
(one-half year each)	-
Natural Science (1 year)	2
Biology, 1 year, or Botany and Zoology, one-half year	
Physical Science—(1 year)	2
Chemistry. Earth Science	1
Physical Geography and Geology, one-half year each.	
Physiology and Hygiene (one-half year)	1
Astronomy (one-half year)	
Drawing (one-half year)	1

The requirements for admission to the Freshman class of the College of Physicians and Surgeons may be changed from year to year.

# REQUIREMENTS FOR ADMISSION TO ADVANCED CLASSES.

A student who has matriculated in an accredited medical school, and completed satisfactorily the prescribed course of study, may be admitted to the succeeding year of the Department of Medicine, U. S. C. Each applicant for advanced standing is considered upon his or her merits.

### COURSE IN MEDICINE.

The required period of study for the degree of Doctor of Medicine is four years of thirty-six weeks each. The Freshman and Sophomore years are given Histology, Osteology, Comparative Anatomy, Anatomy, Physiology, Chemistry, Embryology, Pharmacology, Pathology, Bacteriology, Materia Medica and Therapeutics, while the Junior and Senior years are devoted largely to the clinical branches of medicine.

Instruction is given by lectures, recitations, conferences, laboratory work, demonstrations, dispensary clinics and hospital clinics, both medical and surgical.

During the Senior year optional courses are offered so as to allow the student to give special attention to some branch in which he may wish to specialize,

### BUILDINGS AND EQUIPMENT.

Instruction in some of the branches of the first two years is given in the College of Liberal Arts on the University campus. It is the intention of the Trustees of the University to offer the entire work of the Freshman and Sophomore years on the quadrangle as soon as the necessary arrangements can be concluded.

The main building of the Department of Medicine, the College of Physicians and Surgeons, is situated on East Washington Street, between the University Campus and the business center of the city, and is readily accessible to the University and to different parts of Los Angeles.

Many special features are contained in the main medical buildings, such as apparatus for forcing cool and pure air into each room, storage tanks for anatomical material, and a clay-modeling room. The building was erected in 1904, and not only contains modern conveniences and appliances, but also the newer models of scientific apparatus.

### LABORATORY FACILITIES.

The College of Physicians and Surgeons lays emphasis upon the thoroughness of its laboratory instruction.

The laboratories are new and the equipment is extensive and modern.

### LIBRARY FACILITIES.

The University Library is well supplied with reference works in Embryology, Histology, Physiology and Morphology.

The Los Angeles City Library contains complete sets of many scientific journals, especially those pertaining to Biology and Chemistry.

The Barlow Medical Library was established in 1906 by Dr. Jarvis Barlow, formerly a Professor of Clinical Medicine in the University of Southern California. Dr. Barlow presented the library building "to the medical profession of the great Southwest." A large and constantly increasing number of medical volumes is now housed conveniently in this Library, thanks to the generosity and support of the physicians of Southern California.

### CLINICAL OPPORTUNITIES.

The clinics, which are open each afternoon to the Juniors and Seniors, afford more material than can be used to advantage. The clinics are held each afternoon from 1 to 2 P. M. in the College Building. The location brings a superior class of clinical material—a class which the student can use to most advantage, especially in obtaining an accurate history of the case. A down town clinic is being established, which will make the clinical facilities second to those of no other college in the country.

In addition to the clinics held in the medical buildings of the University, the different professors conduct clinics in the County Hospital, which is an institution of 400 beds. The County Hospital affords ample opportunities in the medical, surgical, gynecological, obstetrical, eye, ear, nose, throat, genito-urinary and dermatological departments.

Various members of the faculty are interested in private hospitals, and students frequently have rare opportunities for witnessing and assisting at operations.

### HOSPITAL INTERNSHIPS.

Internships and appointments in hospitals of Los Angeles and surrounding cities are available to graduates of the College of Physicians and Surgeons.

In this connection it is of interest to note that for many years there have been more positions of this kind open to appointment than there have been graduates to fill them.

### **PRIZES**

The Faculty will give a prize to the member of the Freshman, Sophomore, Junior and Senior classes who obtains the highest general average in the final examinations upon the studies of that year.

Professor Charles W. Bryson will present at Commencement Exercises a prize to the member of the Graduating Class obtaining the highest general average in attendance and general proficiency as shown in the finals in Gynecology and Abdominal Surgery.

Professor James H. Seymour will present at Commencement Exercises a prize to the member of the Graduating Class obtaining the highest general average in attendance and general proficiency as shown in the finals in Surgery.

Associate Professor W. Harriman Jones will present at Commencement Exercises a prize to the member of the Junior Class obtaining the highest general average in attendance and general proficiency as shown in the finals in Gynecology.

# COURSES PRELIMINARY TO THE STUDY OF MEDICINE.

Candidates who are not qualified for admission to the Department of Medicine, upon matriculation at the College of Liberal Arts of the University, may elect courses especially designed for those who plan to study medicine. These courses include Physics, Inorganic and Organic Chemistry, Zoology, Botany, Embryology, Bionomics, and should give the student that grasp on fundamental branches which is essential for a proper undertaking of the medical course.

# COMBINED SIX YEAR COURSE FOR DEGREE OF A. B. AND M. D.

Students who have matriculated in the College of Liberal Arts of the University and who plan to study medicine, may so combine the four-year course for the A. B. degree with the four-year course for the M. D. degree as to take both degrees in six years.

# COMBINED COURSE FOR THE DEGREE OF A. M. $AND\ M.\ D.$

Students holding the A. B. degree from recognized colleges and who enter the Freshman class of the College of Physicians and Surgeons, may matriculate at the Graduate School of the University, thus becoming candidates for the M. A. degree. Registration at the Graduate School may be made any time before the opening of Junior year. The candidate pursues advanced study along some special line and submits a thesis embodying original research. The degree of Master of Arts is given to the candidate upon the completion of the requirements for the advanced degree.

### FEES AND EXPENSES

Matriculation Fee (paid but once)	5.00
Tuition Fee (payable in advance), per year	150.00
Final Examination Fee (not returnable)	25.00

A deposit of \$10.00 is required of all students to cover breakage and damage to buildings and equipment. The unexpended balance is refunded at the close of the year.

A rental of \$5.00 for microscope and \$2.00 for immersion lens is charged each year for their use in Histology, Embryology, Bacteriology, Microscopy and Pathology. The student will be charged for all breakage in any of the laboratories.

These fees are payable in advance each year. If not paid within four weeks of the beginning of the course, the right to attend lectures may be forfeited, and no student will be permitted to take an examination who is in arrears for fees, and no advanced standing whatever will be given a student under such conditions.

For further information address

CHARLES W. BRYSON, A.B., M.D., Dean 402-403 Delta Building, Los Angeles, California.

### DEPARTMENTS OF INSTRUCTION

### ANATOMY.

Robert Henry Burton, M.D.,

Associate Professor of Anatomy and Demonstrator of Anatomy.

Raphael Burke Durfee, M.D., Associate Professor of Anatomy.

Henry Michael Rooney, A.B., M.D., Associate Professor of Anatomy.

John C. Ferbert, M.D., Associate Professor of Surgical Anatomy.

> Ralph Louis Byron, M.D., Lecturer on Osteology.

Clarence Holmes Criley, Ph.B., M. D., Instructor in Anatomy.

The study of Anatomy is divided into seven courses and extends throughout the entire four years of college work. The laboratories and dissecting room are well equipped, and an abundance of working material is assured.

Course I. Practical Anatomy. Each student of the first and second year is required to dissect the entire lateral half of the body in three parts, during which he is assisted and quizzed by the instructors. When the student has finished a part, he must show suitable drawings made from his work and pass an examination before allowed to begin his next part. Three hundred and sixty hours.

Course II. Bones, Joints and Ligaments, and two recitations a week for first year students. Sixty hours.

The bones are studied individually and collectively, the students pointing out and describing the different parts from actual specimens. Bones are loaned the students for private study.

Course III. Muscles, Vessels, and the Viscera. This course extends throughout the first year, including one hundred and

eighty hours of recitation work, with special demonstrations on the cadaver.

Course IV. The Nervous System, Special Senses, and the Reproductive Organs are taken up in the second year. Two recitations a week, with drawings of the part studied. Eighty hours.

Course V. Embryology. Two recitations and two laboratory hours per week throughout the Sophomore year. The lecture course will embrace a comparative study of reproduction in the animal kingdom. Cell reproduction, fertilization, maturization, formation of gastrula, the ovum, implatation, etc., the relationship and structure of the foetal envelope, will be thoroughly considered.

The Laboratory Course will consist of drawings, with full descriptive notes and examinations of sections of embryo of the pig, chick, etc., in the various stages of development.

Course VI. Comparative Anatomy. One lecture a week

through the Sophomore year.

A course of lectures, illustrated copiously with osteological material and preserved specimens.

Structure is the servant of function. The effort is made in the course to point out the way in which the physiological functions common to all animals are provided for in the structure of type forms from among the lower animals. It is planned thus to give a broader conception of the living animal body, the zoological characteristics of the human species and the biological forces that have brought about the present peculiarities of form.

Course VII. Surgical Applied Anatomy and Operative Surgery on the cadaver will be taught in the third year. Forty hours.

Text Books:—Anatomy: Cunningham & Cunningham's Dissector. Embryology: Heisler.

For Reference:-Piersol; Morris; Gray, and Treves.

### HISTOLOGY.

Ethel Langdon Leonard, B.S., M.D., Associate Professor of Histology.

Six hours a week throughout the Freshman year is given to the subject of Histology. The work is divided into two courses. Course I. Elementary Histology is given the first of the Freshman year. The study of fresh tissues, those which have been disassociated, is first given to the student. Fixed and hardened tissues are next studied. All the elementary tissues of the body, including normal blood, are studied. The student is required to make sketches and colored drawings of all the specimens studied.

Course II. The work of the second semester is devoted to the study of the organs of the human body. Rapid methods of fixing and hardening tissues are discussed, and every technical detail of the work of preparing tissues for microscopical study is demonstrated and discussed. Quizzes, written reviews and practical tests are given to the class at frequent intervals throughout the year.

Text Books recommended for study: Bailey's Histology; Clarkson's Text Book of Histology; Quain's Anatomy; Sczymonowicz & MacCallum, Microscopical Histology.

### CHEMISTRY.

Lyman Brumbaugh Stookey, A.M., Ph.D., Professor of Chemistry.

Alanson Halden Jones, A.M., M.D., Instructor in Chemistry.

Course I. General Inorganic Chemistry. (First year students.)
Two hours lectures, six hours laboratory, and two hours recitations during the first half of the first semester.

Those phases of Inorganic Chemistry are considered which are necessary for a thorough understanding of chemical principles. Those aspects of physics which are required to give a thorough view of the constitution of matter, the element particle and its behavior, also the newer physics sufficient to make plain the subject of ionization are treated. The laboratory exercises are representative in character. The needs of the medical student are kept in mind. Most time is given to those elements whose compounds later will be his chief study.

Course II. Some Applications of Physical Chemistry to Physiology. (First year students.)

Two hours lectures, six hours laboratory and two hours recitations during part of the first semester.

Among the subjects discussed are: Theory of solution, the properties of dissolved substances, osmotic pressure, concentration law, catalysis, mass action, ionization, thermo-chemical change, colloidal state, some reactions which go on in living matter, the physico-chemical organization of the cell.

Course III. Special Methods of Quantitative Analysis. (First year students.)

Two hours lectures, six hours laboratory and two hours recitations during part of the first semester.

Those quantitative methods, both volumetric and gravimetric, are taken up which have an application in practical medicine.

Course IV. General Organic Chemistry. (First year students.)
Two hours lectures, six hours laboratory and two hours recitations during part of the second semester

The laboratory exercises embrace a study of the aliphatic derivatives, the carbocyclic and heterocyclic compounds, and a synthesis of some typical substances. Ultimate analysis of organic compounds, derivation of formulae, methods of substitution and of addition are treated. While the principles of the subject are considered from the standpoint of pure chemistry, the examples, illustrations and laboratory exercises deal with methods and with compounds required in practical medicine.

Course V. Toxicological Chemistry. (First year students.)

Two hours lectures, six hours laboratory and two hours recitations during part of the second semester

The object of this course is to acquaint the student with the more common volatile, alkaloidal and metallic poisons, and the methods employed in toxicological analysis.

Course VI. Advanced Toxicological Chemistry. (Elective.)
Two hours second semester alternate years.

The aim of this course is to afford an opportunity to acquire a more thorough knowledge of toxicology than is possible in the elementary required course. The student is drilled in quantitative methods employed in toxicological analysis. Alleged blood stains are examined. To receive credit for this course each student must report satisfactorily on six poisoned animals submitted to him for toxicological analysis.

Course VII. Chemistry of Carbohydrates, Fats and Proteins.
(First year students.)

Two hours lectures, six hours laboratory and two hours reci-

tations during part of the second semester

This course deals with the chemistry of the common carbohydrates, fats and proteins, including those which occur in the body. In the laboratory the methods for their detection, differentiation and quantitative estimation are taught. The more common cleavige products of the protein molecule are studied.

Course VIII. Analysis of Foods. (Elective.)

Three hours weekly first semester alternate years.

The more common methods employed in the analysis of foods are taught, emphasis being laid on the more frequently used adulterants and preservatives and their detection.

Course IX. Water Analysis. (Elective.)

Three hours weekly during the second semester.

The student choosing this course is given an opportunity to familiarize himself with the methods used in the chemical analysis of water.

Course X. Pathological Chemistry. (Third year students.)

One hour lecture and one hour recitation during the second semester.

The following subjects are discussed: Inorganic salts in disease, calcification, concretions and incrustations, uraemia, eclampsia, intestinal putrefactive processes including auto-intoxication, Ptomaines, benign and malignant tumors, phytotoxins, zootoxins, retrogressive processes, pathological pigmentation, chemical defenses of the body against disease.

Course XI. Pathological Chemistry. (Elective.)

Two hours weekly during first semester, alternate years.

In this course the student is drilled in laboratory diagnosis. Opportunity is offered to examine pathological stomach contents, blood, urine, faeces, exudates, concretions, cerebrospinal fluid, and other available material with reference to diagnosis.

Course XII. Chemical Conference. (Elective.)

Those who are interested are invited at times to be announced to discuss informally selected problems in medical chemistry, usually such as supplement instruction given in other ways. Problems under investigation in the laboratory are introduced for discussion.

#### PHYSIOLOGY.

Lyman Brumbaugh Stookey, A.M., Ph.D., Professor of Physiology.

Alanson Halden Jones, A.M., M.D., Instructor in Physiology.

Instruction in this department is given by lectures, laboratory exercises, demonstrations and recitations. The laboratory exercises enable the student to acquire a direct acquaintance with experimental methods. The chief ends sought in the laboratory exercises are precision in conducting experiments, accuracy in observation and logic in deduction.

Formal written examinations in each course of this department are held at frequent intervals. These tests are invaluable in the cultivation of a clear and concise expression of thought.

The assistantships in this department are honor positions and are awarded according to scholarship and fitness.

Course I. Physiology of the Cell. (First year students.)

Three hours lectures, four hours laboratory and two hours recitations during the first half of the first semester.

The cell is studied as an elementary organism, emphasis being laid on it as the seat of vital processes. Special attention is given to the structure and chemistry of protoplasm, chemical reactions in the cell, irritability, contractility, tropisms, development of multicellular from unicellular organisms.

Course II. Physiology of Muscle and Nerve. (First year students.)

Three hours lectures, four hours laboratory and two hours recitations during the second half of the first semester.

Kymographical records are made by each student. The lab-

oratory exercises include a study of the following: Mechanical, thermal, chemical and electrical stimulation of muscle and nerve, indirect and direct stimulation of muscle, changes in intensity of stimulus, minimal and maximal stimuli, influence of duration of stimulus, laws of contraction, natural tetanus, artificial tetanus, elasticity and extensibility of muscle, influence of temperature and load on muscular contraction, contraction of human muscle, ergograph, electrotonus, fatigue of muscle, fatigue of nerve, muscle currents, nerve currents, velocity of nerve impulse, conditions affecting excitability of nerve.

Course III. Physiology of Circulation, Blood and Lymph.
(First year students.)

Three hours lectures, four hours laboratory and two hours recitations during the first half of the second semester.

Graphical records are kept by each student. Most of the experiments are carried out on the frog's heart. Among the topics studied in the laboratory are: Stair-case character of heart-beats, cardio-inhibitory center, latent period of cardiac muscle, effect of vagus on heart, action of atropin, muscarin, pilocarpin and nicotin on heart, constant current on heart, perfusion of fluids through the heart, endocardiac pressure, action of the heart valves, reflex inhibition of the heart, sphygmograph, blood pressure in different parts of the vascular system, red cell count, white cell count, differential count, colorimetric estimation of haemoglobin, spectroscopical examination of haemoglobin and its derivatives, haemorrhage and regeneration, coagulation.

Course IV. Physiology of Respiration, Reproduction, Animal Heat. (First year students.)

Three hours lectures, four hours laboratory and two hours recitations during the second half of the second semester.

The laboratory exercises embrace a study of the following: Movements of the chest wall, vital capacity, respiratory waves of blood pressure, variations of intrathoracic pressure, gases of the blood, reflex stimulation of respiratory center, relation of afferent fibers of vagi to respiratory center, respiratory quotient and its variations, modified respiratory movements, calorimetry. Course V. Physiology of Digestion, Absorption, Secretion, Excretion and Metabolism. (Second year students.)

Two hours lectures, six hours laboratory and one hour recitations during the first semester.

Course VI. General Chemical Physiology.

(Second year students.)

Two hours lectures, six hours laboratory and one hour recitation during the second semester.

This course embraces a study of the chemical changes occurring in the body, the chemical constituents of almost every tissue, and the functions of the constituents of the different tissues.

Course VII. Physiological Action of Druge (Pharmacology). (Second year students.)

One hour lecture and one hour demonstration of recitation during both semesters.

This course consists of a study of the changes induced in the living organism by the administration of the more common and important drugs. Laboratory demonstrations supplement the lectures.

Course VIII. Advanced Pharmacology.

(Elective.) Alternate years.

One hour lecture weekly during the first semester.

In this course a study is made of the physiological changes induced in the body by the less frequently used drugs. The relation between chemical constitution and pharmacological action is considered in studying some of the newer synthetical drugs.

Course IX. Physiology of the Central Nervous System and the Sense Organs. (Second year students.)

One hour lecture and one hour laboratory or recitation during the second semester.

During the first semester the class is trained in the anatomy of the brain. During the second semester the physiology of the central nervous system is studied. Emphasis is laid upon reflex action, reaction time, localization of functions in cerebrum, motor and sensory tracts in central nervous system and physiological optics.

Course X. Advanced Physiology. (Elective.) Alternate years. This course consists of a detailed study of special subjects in Physiology, and includes the reading of original investigations along lines to be assigned, and the performance of laboratory experiments. Each student electing this course is required to carry out a complete metabolism experiment.

Course XI. Operative Physiology. (Elective.) Alternate years. The object of this course is to acquaint the student with the more common operative procedure in physiological investigation. The following operations are performed on the dog: Gastric, biliary, and pancreatic fistulae, Eck's operation, splenectomy, thyroidectomy, nephrectomy, pancreatatomy, gastroenterostomy, colectomy.

Course XII. Pathological Physiology. (Third year students.)

One hour lecture and one hour recitation during the first semester.

Among the subjects discussed are: Disturbances in the digestive secretions, starvation, overeating, obesity, disturbances in the metabolism of carbohydrates, fats and proteins, qualitative changes in metabolism, production of organic acids, disturbances in the secretion of bile, alkaptonuria, cystinuria, pathological alterations in blood pressure, exudates, metabolism in fever anaemia and other pathological conditions.

Course XIII. Dietetics and Nutrition. (Third year students.)
One hour lecture and one hour recitation during second semester.

The lectures treat the following subjects: Specific dynamic action of the different foods, calorific requirements, construction of a diet from the different articles of food, nitrogenous equilibrium, nutrition during the period of growth, inorganic foods, some mineral waters, accessories to food, influence of mechanical work upon metabolism, diets in some pathological conditions.

Course XIV. Physiological Conference. (Elective.)

Those who are interested are invited to meet at times to be announced to discuss informally selected problems in physiology, usually such as supplement instruction given in other ways. Problems under investigation in the laboratory are introduced for discussion.

Course XV. Original Investigation. (Elective.)

Those who are qualified are encouraged to undertake research work. A reading knowledge of French and German is desirable.

#### PATHOLOGY.

Andrew Fremont Wagner, A.M., Associate Professor of Pathology.

The complete course covers a period of considerably over four hundred hours, extending through three full years, viz., Sophomore, Junior, and Senior, and consists of thorough didactic and laboratory work.

The didactic work consists of lectures, recitations and quizzes, with written examinations at stated periods, and the practical work consists of identification, study and drawing of microscopical specimens; the fixing, hardening, sectioning, staining and mounting of pathological tissues; the study of gross speciments, and the performance of autopsies at the County or other hospitals of this city.

The laboratories of the college are supplied with all the necessary equipments for instruction in this important branch of medicine, including a projectoscope, freezing, paraffin, and celloidin microtomes, Bausch and Lomb microscopes, etc., enabling the student to become familiar with all the routine work pertaining to this department.

Five courses are given:

Course I. General Pathology. This course is given to the Sophomore class throughout the entire year, and includes the subjects properly coming under this heading, viz., general causation of disease, circulatory disturbances, degenerations, inflammation, neoplasms, and parasitic diseases.

The didactic work is supplemented in the laboratory by the study of specimens, illustrating the pathologic conditions under discussion at the time in the lecture-room. As one subject after another is taken up systematically, the class is furnished by the department with specimens representing the particular lesions lectured on, which the students are required to study, and of which they make drawings. These drawings are taken into consideration in making up the final credits of each student. At the same time all the pathological material available is used in teaching the student to prepare, cut, stain and mount his own sections.

Course II. Special Pathology. This course is given to the Junior and Senior classes, thus giving the later the benefit of a very thorough review of the whole subject of special pathology as given in the Junior year. The various tissues and organs are taken up in order, and the pathological changes studied under general conditions before are now studied in their new relations and modifications.

Course III. Gross Pathology and Postmortem Work. This course is given to both Junior and Senior students, and consists of identification and study of diseased parts with the naked eye, and the various microscopical staining, and other reactions.

The technique of making autopsies is taught by demonstrations, and opportunity is afforded the students to assist in the performance of the work.

Course IV. Postgraduate Course. This course will be given to postgraduates and other desiring to take up work along special lines in any department of pathology. In such a course may be included the work as outlined in Courses I, II and III, but with such limitations as to detail as will be necessitated by the amount of time available for the course.

Text Books: Stengel; Delafield and Prudden; Adams; Beattie and Dickson; Ziegler; Wells' Chemical Pathology.

## MATERIA MEDICA AND THERAPEUTICS.

Frederick John Kruell, Ph. G., M.D., Professor of Materia Medica and Therapeutics.

Reginald S. Petter, M.D., Associate Professor of Materia Medica.

Edward Douglass Jones, M.D., Instructor in Therapeutics.

Course I. First and second year students will receive instruction in the physical, chemical and pharmaceutical properties of remedial agents, pharmacodynamics, medical pharmacy, and the elements of prescription writing.

Three hours each week will be devoted to the above studies throughout the college year.

Course II. Third and fourth year students are instructed in the principles of therapeutics, applied therapeutics, and advanced prescription writing from a therapeutic standpoint, dietetics, and the therapeutic management of special diseases.

Three hours each week throughout the college year are devoted to the above studies.

Text Books: Hare; Shoemaker; Stevens; Potter; Sollmann.

#### BACTERIOLOGY.

Andrew Fremont Wagner, A.M., M.D., Associate Professor of Bacteriology.

> Downing D. Nice, M.D., Assistant in Bacteriology.

This course is given in the second year, and reviewed in the fourth year.

The whole subject of Bacteriology—general and special—is taught by lectures, quizzes, and laboratory instruction throughout the entire year.

The didactic work is thorough and complete, the first half of the course including the classification, physical and chemical structure of the bacteria in general, as well as the products of their biological activities, and particularly the antibodies, the opsonic substances, and the theories of infection and immunity relating to the various pathogenic micro-organisms, while the second half of the course covers the identification, the staining, cultural and other biologic characteristics of the various species of pathogenic bacteria, as well as of the pathogenic protozoa, yeasts and moulds.

The laboratory work is comprehensive, and aims to be as practical as possible. The student is made familiar with approved methods of technique by requiring him to actually perform the work done in bacteriological laboratories, from the preparation of staining fluids and of culture media to the cultivation and inoculation of the different organisms.

The review, by quizzing, of the subject in the Senior year enables the student about to graduate not only to refresh his memory in the details of this important department of the study

of disease, but affords an opportunity of presenting to him any new facts that are liable to be developed from year to year in this rapidly growing subject.

Text Books: Park's Pathogenic Bacteria and Protozoa; Jordan's General Bacteriology; Muir and Ritchie (1907 Edition) and MacFarland's Pathogenic Bacteria.

#### MEDICINE.

Thompson B. Wright, A.M., M.D., Professor of Medicine.

Sylvester Gwaltney, A.M., M.D., Professor of Clinical Medicine.

Charles E. Zerfing, M.D., Associate Professor of Medicine.

Instructor in the Medical Department. Edward William Hanlon, M.D.,

> Louis Weber, B.S., M.D., Instructor in Medicine.

William Elmer Carter, M.D., Instructor in Medicine.

Dallas Case Ragland, M.D.,
Laboratory Instructor in the Medical Department.

Course I. During the Junior year a series of didactic lectures will be given, of a thoroughly practical nature, embracing a critical study of internal diseases generally, including diseases caused by parasites, infectious diseases, constitutional diseases, and the diseases grouped according to the organs affected, such as: Diseases of the lungs, heart and arteries, of the liver, of the stomach and intestines, of the pancreas, of the kidneys and spleen and lymphatic system, of the blood and of ductless glands.

Especial attention will be given to the study of etiology, bacteriology, pathological signs and symptoms, diagnosis, prognosis,

and treatment of each disease, and the lectures will be amply foilowed up and illustrated by patients drawn from the various clinics in connection with the College and County Hospital; also by the use of pathological specimens from the College Museum, and by the use of suitable charts, etc.

The student will be given special instruction in the application of anatomical knowledge to the investigation of the disease, the methods of examining various organs and parts, to detect evidence of disease, the mode of employment of instruments and apparatus used in diagnosis, treatment prescribed, and applied therapeutics.

Course II. The Department of Physical Diagnosis has been incorporated with the Department of Medicine, and instruction in this branch is directly taught by an Associate Professor of Medicine, so that it can be more readily condensed with the other work in the department.

The mode of instruction in this Department of Medicine is based chiefly upon clinical, practical training at the bedside, comprising anamnesis, status presens, pathology, diagnosis and differential diagnosis. In the Junior year practical instruction is given twice a week at the Los Angeles County Hospital two hours each week, and one hour didactic lecture at the College.

For the proper conception of the abundant and interesting clinical material offered the Junior class, a proper training in auscultation and percussion is a condition sine qua non. Cases are brought before the class with a complete history taken by one of the students and then demonstrated and discussed.

During the year each student is required to furnish in writing three complete history reports of patients, and at the end of the year to pass an oral and practical examination at the bedside. This constitutes an essential item in the markings on final examinations.

Course III. During the Junior year clinical microscopy is taught by didactic and socratic instruction at the County Hospital three hours weekly—together with practical demonstrations of the latest and best laboratory methods. This course comprises the most approved methods of examining the urine, chemical and microscopical examination of the blood, sputum and gastric con-

tents, as well as the morbid products and secretions of disease, also the latest methods of serum diagnosis. The hospital service is utilized and the course so arranged that the student may receive the benefit of a personal examination of the patient in connection with laboratory work necessary for the elucidation of the case.

Course IV. The Junior and Senior classes receive systematic instruction in the practice of medicine at the bedside. Ward and observation classes are formed, as these conference classes have proved a success and represent a great improvement over the old method of clinical lectures. Each case is carefully studied by the students, who prepare reports upon that portion of the case to which they have been assigned. These reports are read in class and discussed, after which the professor in charge draws attention to errors and directs the students in correctly interpreting the data collected. The conference closes with a brief review, during which important points are accentuated and peculiar ones noted.

Most excellent clinical facilities are afforded at the County Hospital with its 400 beds. The recent establishment of a regular visiting staff having absolute charge of the patients, opens up new opportunities for the close study and treatment of disease in this institution. Our students have constant access to the wards, giving them the opportunity to obtain at first hand that knowledge of disease which can only be acquired through intimate contact with the patient.

Each student is required to submit complete case reports on a number of cases during the year.

Course V. The department in tropical medicine, directly under the charge of the professor of clinical medicine, is open to Senior students and comprises one recitation weekly.

Recognizing that a knowledge of natural history is essential to a thorough understanding of the causative factors in the production of tropical diseases, the student is taught to construct analytic outlines of the various parasites and their associated diseases, special attention is given to the etiology, pathology, symptomatology, diagnosis, prognosis and treatment, and the most approved methods of prophylaxis.

During the year clinical instruction in tropical diseases is given at the County Hospital.

Text Books: Diagnosis—Osler; Butler; Anders, Emerson; Boston; Cabot's Diseases of the Blood; Todd's Manual of Clinical Diagnosis; DaCosta.

Practice: Anders; Osler; Tyson; Edwards; Manson; Jackson. Collateral Reading and Reference: Krehl's Pathological Physiology; Hammarstein's Physiological Chemistry; Cushney's Pharmacology; Potter's Materia Medica and Therapeutics.

#### OBSTETRICS.

Walter Sydney Johnson, A.B., M.D., Professor of Obstetrics.

Instruction in Obstetrics is begun in the third year, and is carried on by means of didactic lectures, recitations and demonstrations, upon the manikin and living subject; by the use of charts, wet and dry specimens, models and pelves.

The subject matter during this year embraces the anatomy of the pelvis, physiology, and development of the ovum, normal pregnancy, normal labor and normal puerpery.

Two hours a week are given to lectures and recitations throughout this year.

Lectures and recitations are continued during the fourth year, at which time the complications and difficulties liable to be encountered in the practice of the science and art of obstetrics are successively considered, viz., abnormal pregnancy, dystocia, and abnormal puerpery.

Special attention is given to asepsis, external palpation, pelvimetry, the use of forceps, and the different obstetric operations.

Students during this year, in addition to the above, are expected to attend one or more cases of labor, under the supervision of the Professor of Obstetrics. The maternity wards of the County Hospital and the many charitable cases coming under the care of this department afford ample material for practical demonstration, thus giving the student a thorough working knowledge of the subject.

Text Books: Williams; Edgar; American Text Book; Hirst; Wright.

#### SURGERY.

James Harvey Seymour, M.D., Professor of Clinical Surgery.

Orville O. Witherbee, M.D., Professor of Clinical Surgery.

. John Jay Still, M.D., Associate Professor of Surgery.

Charles Worth Norton, M.D., Instructor in Minor Surgery.

This department embraces didactic and clinical instructions and extends through the Junior and Senior years. Five hours a week are devoted to class-room instruction, consisting of a systematic course of lectures and recitations.

In the Junior year the principles underlying surgical procedures and governing surgical diseases, together with a thorough grounding in surgical pathology, are considered. The art of bandaging, the application of surgical dressing and the use of anæsthetics are taught during this year. Clinical instruction is begun by the Junior student and he is given ample opportunity to witness all the major and minor operations.

In the Senior year students are required to attend all surgical clinics, while continuing the course of instruction in general and special surgery. Four hours a week are devoted to clinical lectures at the County Hospital and daily clinics are held at the College Dispensary. Many opportunities are also afforded the Senior class to witness, at close range, operations in the many hospitals with which Los Angeles is so bountifully provided. Every effort indeed is made to familiarize the student with the practical application and modern surgical procedures, to the end that he may be fully equipped to meet any and all emergencies within the domain of surgery.

Text Books: DaCosta; Wyeth; Lexer-Bevan; Scudder's Treatment of Fractures; Stimson on Fractures and Dislocations; Operative Surgery—Bryant; Bickham; Treaves; Minor Surgery—Foote.

#### GYNECOLOGY AND ABDOMINAL SURGERY.

Charles William Bryson, A.B., M.D., Professor of Gynecology and Abdominal Surgery.

William Harriman Jones, A.B., M.D., Associate Professor of Gynecology.

Instruction in this department will be didactic and clinical, comprising lectures, recitations, quizzes, dispensary and hospital clinics, and minor and major operations, before members of the Junior and Senior classes, and will continue throughout the Junior and Senior years. In the Clinical Department students will be divided into small classes, the better to enable them to witness closely the technique of all operations.

Students will be required to examine, diagnose and treat patients in the presence of the professor in charge, in order to become proficient in gynecological diagnosis and treatment. In thus bringing the student in close personal relation with a large number and variety of cases, he familiarizes himself with the different methods of examining patients, and at the same time he becomes accustomed to making diagnoses and formulating treatment, as well as witnessing closely and assisting at all of the minor and major operations in gynecology and abdominal surgery. Diseases of the bladder and urethra will be thoroughly covered in this department and their medical and surgical treatment outlined and demonstrated. Methods of inspection and examination will be taught by the use of charts and manikins, as well as upon the living subjects. The practical manipulation and use of the cystoscope will be shown first upon bladder phantoms, then upon the living subject in the Clinical Department. A thorough theoretical as well as practical knowledge of gynecology and abdominal surgery in its broadest scope is a prerequisite to graduation from this College, and every opportunity will be offered the student to prepare himself for the arduous duties that will come to him in his professional career.

Text Books: Dudley; Gilliam; Montgomery; Ashton; Reed; Penrose; Hirst; Possi; Byford; Garrigues; Crossen; Kelly's Operative Gynecology; Surgical Diseases of Abdomen, by Douglas; Abdominal Operations, by Moynihan.

#### OPHTHALMOLOGY.

Thomas Jefferson McCoy, M.D., Professor of Ophthalmology.

George Washington McCoy, A.M., M.D., Associate Professor of Ophthalmology.

This course on diseases of the eye will consist of one didactic and two clinical lectures each week, giving practical instructions on the eye in general, the recognition, differentiation and treatment of the common, as well as the complicated diseases and injuries, teaching the recognition of diseases in the eye as diagnostic of disease in remote organs, the principles and the use of the ophthalmoscope and clinical instructions on refraction. Ample material is available at the hospitals, college and outdoor clinics.

Text Books: May; Fox; Jackson; De Schweinitz; Ball or Fuchs.

#### OTOLOGY, LARYNGOLOGY AND RHINOLOGY.

William Leander Zuill, M.D.,
Professor of Otology, Laryngology, and Rhinology.

George Jesse Lund, M.D.,

Associate Professor of Ootology, Laryngology, and Rhinology.

This subject is taught by lectures, recitations, reviews, and clinical instructions, consisting of three hours per week of didactic work and three hours per week of clinical work in the College Dispensary and County Hospital.

This course of special work comprises the latest and most modern methods in technique, and particular pains are taken to make the student perfectly familiar with the practical side of the diseases of these organs as presented in our regular clinics at the College Dispensary and County Hospital.

Special attention is given: First—To the Anatomy and Physiology of the Ear, Nose and Throat, and Accessory Sinuses. Second—Methods of Examination. Third—General pathological conditions. Fourth—Special diseases of the organs. Fifth—Diseases of Accessory Cavitics. Sixth—Neoplasms. Seventh—Operations.

Text Books: Bishop, on Diseases of Nose, Throat and Ear, third edition; Kyle, Diseases of Nose and Throat; Coakley, on Diseases of Nose and Throat.

#### NERVOUS AND MENTAL DISEASES.

James Tucker Fisher, M.D., Professor of Neurology.

Thomas James Cummins, M.D., Assistant Professor of Neurology.

The course in Neurology, Psychiatry and Neuro-Pathology consists of lectures and clinics at the Medical School, County Hospital and Soldiers' Home each week during the third and fourth years.

· The clinical course familiarizes the student with the common disturbances of the nervous system and some of the more important mental diseases,

The detention of the insane at the County Hospital, before commitment to the State Hospital for the insane, allows the student to see many forms of insanity.

Text Books: Dana; Starr; Gordon; Mettler.

## STATE MEDICINE AND HYGIENE.

## Associate Professor State Medicine and Hygiene.

Two hours each week during the Junior and Senior year will be devoted to instruction in this important branch of medicine. Hygiene as applied to preservation of health and prevention of disease will be thoroughly illustrated, especial attention eing given to the pure food law, state, national and interstate control of pure foods and drugs, adulterations, dilutions, labeling, etc.

School-room and military (camp) hygiene will receive especial consideration.

A full course in hygiene of air, soil, water, climate, food and diet; food supply, food diseases and adulterations; heating, lighting and ventilating of dwellings; municipal sanitation and water supply, sewage and drainage, disposal of refuse; in fact, every department in connection with preventive medicine and sanitary laws, will be given.

Text Books: Parkes; Egbert; Bergy.

#### ELECTRO-THERAPEUTICS.

Louis Weber, B.S., M.D., Instructor in Electro-Therapeutics.

Lectures will be delivered and recitations held during the Junior and Senior years covering the history of electricity, the different currents in use, and their application to practical therapeutics. The ground covered shall comprise knowledge of apparatus, currents employed, and technique of treatments, electrodiagnosis, magnetism, Roentgen rays, light and high-frequency therapy, and other allied subjects.

The latest electrical apparatus for practical clinical demonstra-

tion of all forms of electricity has been installed.

Text Books: Rockwell's Medical and Surgical Electricity; Massey's Treatment of Diseases by Galvanic and Faradic Electricity; Pussey's Caldwell on Roentgen Rays in Therapeutics and Diagnosis; Moneil's Static Electricity and X-Ray for Therapeutic Use.

#### GENITO-URINARY DISEASES.

Warren Hichols Horton, M.D., Associate Professor of Genito-Urinary Diseases.

This course comprises a series of lectures and clinical demonstrations throughout the Senior year, and is limited to Senior students.

In the didactic course, the anatomy, histology, embryology and physiology of the entire genito-urinary tract is reviewed, such time being spent on this as to insure a thorough knowledge of the fundamental principle of this subject, and then the diseases of the various organs are taken up seperately, special attention being given to the pathological changes and their diagnosis.

The operative procedures are taught on the cadaver, and the students are required to go through the various steps of each operation under the guidance of the instructor.

The diagnosis is gone into with each pathological condition as it is being studied, but preliminary to this, special instruction is given in palpation and percussion and various other methods pertaining to genito-urinary diseases in general, individual in-

struction being given in the use of the cystoscope, urethroscope and catherterising ureters, etc.

These lectures will be illustrated by a series of clinical demonstrations upon material from the College Clinic and at the County Hospital.

No one text book is followed in the course, but the students of this branch are recommended to buy various texts, and thereby the class has the advantage of the different authors writing on this subject.

Works recommended: Casper; Kreissel; Fynger; Corner; Keyes; White and Martin; Morrow's System; Deaver's Diseases of the Prostate Gland; and various texts on Anatomy, Histology and Embryology used in other departments of the school.

#### DERMATOLOGY.

Anstruther Davidson, C.M., M.B., M.D., Associate Professor of Dermatology.

Dermatology, embracing within its scope Syphilography, has been taken from the Department of Genito-Urinary Diseases and placed in a separate department.

This course embraces one hour each week throughout the Senior year. The subject matter covered will be the histo-pathology and bacteriology of the skin, relations of diseases of the skin to other diseases and to other organs, embracing also patho- and radio-therapy, disorders of the glandular system, inflammations, hemorrhages, atrophies and hypertrophies, new growths, neuroses, parasitic affections, etc., etc., will be taken up, and the latest methods in etiology, diagnosis and treatment will be carefully outlined.

Syphilis, its effects, direct and remote, upon healthy and diseased organs, together with the most modern methods of diagnosis and treatment, will be covered thoroughly during the year.

Text Books: Lydston; Jackson; Stellwagon.

## PEDIATRICS.

Francis Oliver Yost, M.D., Professor of Pediatrics.

The course in diseases of children consists of lectures, recitations and clinics, during the third and fourth years. In the lectures special attention is devoted to the subject of infant feeding, and the infectious diseases of childhood. The clinical course familiarizes the student with the symptomatology of the common diseases of children.

In the recitations a special effort is made to impress the practical points of diagnosis and treatment.

Text Book: Holt.

Collateral Reading: Koplik; Rotch; Jacobi; Cotton; Fischer; Corlett; Graetzer; Ruhrah; Kerr; Kerley; Pfaundler and Schlossman.

## MEDICAL JURISPRUDENCE.

# Professor of Medical Jurisprudence.

Lectures will be given on the following subjects: Legal relations of physician to patient and patient to physician, including rights to compensation, collection of fees, malpractice; legal relations of physician to government, including government regulation of practice, power to protect public health, nuisances and their abatement, adulteration of foods; elementary general principles of law, knowledge of which frequently is required by and useful to physicians, including wills, estates of insane and deceased persons, crimes of violence, rights of children, negligence; legal aspects of mental disorders and diseases, including testamentary capacity, criminal responsibility of insane, alcoholism and drug addictions, legal incompetency to contract, care for and custody of insane, property rights of insane; personal injuries by violence (a) in civil damage cases, and (b) in criminal cases, including rules of evidence, medico-legal inspection, autopsies (a) to ascertain cause of death, and (b) to obtain evidence of manner of infliction, suicide; toxicology, sex perversions, pregnancy, disease and divorce; life and accident insurance; expert and opinion evidence, including the medical witness, his position, rights and duties

Efforts will be made in this department to familiarize students with the proper methods of practice and procedure in all matters wherein the practitioner of medicine is likely to come in contact with the law or the government, and especially in that large class of cases where accurate knowledge of legal requirements is called for upon the instant. The lack of such knowledge frequently has enacted great embarrassment, both to the courts and to the medical profession.

Text Books: Taylor; Witthaus and Becker, Forensic and Medicine Toxicology.

# HISTORY OF MEDICINE AND MEDICAL BIBLIOGRAPHY.

P. C. Remondino, M.D., Lecturer on History of Medicine and Medical Bibliography.

Dr. Remondino delivered, during the session of 1909-1910, a series of lectures to the entire student body upon that most interesting and instructive topic, History of Medicine and Medical Bibliography. This subject has been added to and made a part of the curriculum of this College. Dr. P. C. Remondino, of San Diego, Cal., has been selected to present this course, he being a man of finished scholarly attainments, and his inherent ability, together with his broad and comprehensive knowledge of this subject, the results of a lifelong study and research into the seemingly impenetrable mysteries of the history of medicine, is an evidence of his peculiar fitness to mak this course interesting and instructive. Dr. Remondino will endeavor to make this course an epitome of the general History of Medicine, taking up probably first the history of Aboriginal Medicine, then the Egypian and Hindoo periods, to be followed by the Ante-Hippocratic Greek medical period. Then will follow the Hippocratic and Alexandrian, the Roman and the Arabian, with the period of renaissance in Europe in the Sixteenth Century. In fact, a review of Medicine from the earliest possible obtainable history down to and including the present, will be given.

The above outline of the course will suffice to call the attention of the student along these lines to the opportunities offered here in this too oft neglected department. We believe that the broadminded, up-to-date medical man should know at least something of the history of his profession.

#### MEDICAL ECONOMICS.

Professor Bryson.
Professor Seymour.

This College, in keeping pace with the advancements being made in medical teaching and training, has adopted the recommendation of the Educational Council of the American Medical Association and added to its curriculum a Department of Medical Economics. The young man or woman taking a degree from a medical institution must go forth usually ill prepared to take and to occupy that high position, and place in the professional and business world that should be expected of them. This course will consist of twelve lectures to the Iunior and Senior classes throughout the term upon the fundamental business principles so essential to the success of the young practician, the duties of the medical man to himself, to his confreres, to his patients, and to the public at large, the relation that should exist between the medical man and the druggist, the Church and the State, etc., etc. This course will aim to inculcate into the mind of the student that broad spirit of altruism which should regulate and control the relations existing between mankind. This course will embrace and set forth that true spirit of fraternization that should permeat the ranks of the medical prefession, that spirit of brotherly love which seems to have been forgotten by the medical fraternity in its onward and rapid progress. The basic principles of organization and unity will be outlined, and, in fact, medical sociology will be woven into a strong and durable fabric which we believe will redound greatly to the future benefit of those who go out into the world to accomplish better things by better methods.

# COLLEGE OF LAW

## **CALENDAR**

1910.

September 12-17	Entrance Examinations for First Semester.
September 19, 20	Registration for First Semester.
November 24, 25	Thanksgiving Vacation.
December 19	Christmas Vacation begins.
	1911.
January 2	Christmas Vacation ends.
February 2,4	Entrance Examination and Registration for Second Semester.
February 22	Washington's Birthday.
May 31-June 13	Final Examinations.
June 15	Commencement.

## ADMISSION REQUIREMENTS

### ADMISSION TO FRESHMAN CLASS.

Applicants for admission to the Freshman year must be at least 18 years of age; must furnish two certificates of good moral character; and must pass satisfactory examinations as hereinafter prescribed, unless otherwise qualified to be admitted.

Graduates of high schools maintaining a four years' course of study or other educational institutions whose course is equivalent to such a high school course, are admitted without examination. Certificates of graduation should be presented.

Other applicants are required to pass satisfactory examinations in each of the subjects of one of the regular four-year high school courses.

In special cases the Dean and Secretary have authority to admit as a special student an applicant who has not the required educational qualifications. Such admission, however, is conditional upon the applicant making up such deficiency before he enters the Senior year.

#### TO ADVANCED STANDING.

Applicants for admission to the Junior or Senior classes must present certificates of the completion by them of work equivalent to that for which they seek to be credited. Certificates will be accepted when issued by a law school belonging to the Association of American Law Schools, or other colleges of law whose requirements are as high and whose course is as extensive as that here given. Applicants for advanced standing not having such certificates must pass examination in the subjects for which they seek credit, but any student who desires to take such an examination must first secure permission to do so from the Dean and Secretary.

Such examinations are given only at the beginning of a semester. A charge of two dollars is made for each special examination.

The school reserves the right to reject any applicant.

Any student displaying a deficiency in English and diction may at any time be required to take instruction in the class of Expression.

The school reserves the right to expel any student whenever the Board of Control deems it necessary for the welfare of the Law School, and to suspend any student or use other methods of discipline, whenever deemed advisable by the Dean and Secretary.

## SPECIAL EXAMINATIONS.

Any student taking the regular course who desires to omit class attendance on any subject and to take a special examination thereon, shall place in the hands of the Secretary a petition asking for the privilege and stating the student's reason therefor.

The petition is referred to the Dean and Secretary. If the permission is granted, a special examination may be given. Such examinations and all examinations for advanced standing, are given at the beginning of a semester, and are passed upon by the instructor teaching the subject, and by the Secretary of the Law School. Passing grade upon all such examinations is 85%.

#### COURSE OF INSTRUCTION.

The method of instruction is a combination of the lecture, text-book and case systems, with practical experience in briefing and pleading.

The purpose of this college is to impart a sound and thorough legal education and to qualify students for admission to practice in all the courts not only of this, but of any other state, and in the Federal Courts.

Attention is called to the fact that courses are given in Briefing and the Use of Books. In addition to the briefs required in Moot Court work, the members of the Faculty assign subjects for briefs in connection with their respective classes.

The course of study, covering a period of three years, leads to the degree of LLB.

The Graduate course of one year leads to the degree of LL.M. All regular students of the law department are entitled to four hours of instruction per week in the College of Liberal Arts without additional cost.

## THE DEGREES OF A.B. AND LL.B.

When a student in the College of Liberal Arts has received 94 semester credits (including all prescribed work) and of these has taken not less than 72 in the College of Liberal Arts of the University of Southern California, he may enter the College of Law; and upon the satisfactory completion of the professional course, receive both degrees, Bachelor of Arts and Bachelor of Laws

## ADMISSION TO THE BAR.

Graduates of the University of Southern California, College of Law, are admitted to the bar upon motion and without examination.

#### SCHOLARSHIP CONTESTS.

A scholarship is given to that member of the High School Graduating Class of 1910 writing the best thesis. Full information concerning this contest may be secured by addressing the Secretary.

#### ALUMNI MEDAL.

This prize is an unusually elaborate gold medal, which is presented each year at commencement to that member of the graduating class who shall have maintained the highest general average in scholarship throughout the whole College course. This medal was awarded in 1908 to William E. Stayton.

#### DEBATING CLUBS.

The Freshman Debating Clubs are under the supervision of the College, and attendance at seventy per cent of the meetings is compulsory on all regular students of the Freshman Class. The Dean of the College of Oratory directs the work.

The Lyceum is a club having a restricted membership, and is composed of members of the Junior and Senior Classes.

The debating contest in which all regular students are eligible to participate, is conducted each year. Those securing first, second and third places receive handsomely engraved certificates and make up the First Debating Team to represent the College of Law in contests with other institutions. The subject of the try-out debate for the year 1909 to 1910 was: "Resolved, that the primary system for nominating public officers, as adopted by the State of California, should be abolished." The Law School was held November 10, 11 and 12, 1909.

## ORATORICAL ASSOCIATION.

The Law School Oratorical Association is organized for the purpose of stimulating interest in oratory.

Occidental College, Pomona College, Whittier College and the University of Southern California compose an Oratorical Association. Students of the Law Department are eligible as representatives of the University in the contests.

A cash prize of \$75 is awarded the winner of the local tryout; \$15 is awarded the contestant taking second place, and \$10 is given the one taking third place. A contest is also held between representatives of the same Colleges, called the Peace Oratorical Contest. A cash prize of \$100 is awarded the winner of the Inter-Collegiate event.

#### FRATERNITIES.

The legal fraternity of the Phi Delta Phi has a chapter here known as Beatty Chapter.

Students intending to organize a fraternity must first obtain the consent of the Dean and Secretary.

#### ATHLETICS.

Regular students of the Junior and Senior years of the College of Law take part in all Inter-Collegiate athletic events in which the University participates, including baseball, football, track meets and tennis.

The Law School has separate baseball, basketball and football teams. It is expected that during the coming year each will be as strong as any of its kind in Southern California.

## FEES AND EXPENSES

An entrance fee of \$10.00 is required upon registering. Tuition fees for the day school are \$42.50 per semester, or if paid in advance at the beginning of the college year, \$75.00 per year.

Tuition fees for the Night School are, for the Freshman year, \$22.50 per semester, or if paid in advance at the beginning of the College year, \$40.00; and for the last three years of the Nnight School \$35.00 per semester, or if paid in advance at the beginning of the College year, \$60.00.

The yearly student body assessment is \$1.00 per school year, and is paid upon registration.

Failure to pay fees when due debars from the class room. Students who are compelled to withdraw from school on account of sickness, will have a part of their tuition refunded upon application.

Address all communications to

GAVIN .W CRAIG, Secretary,
College of Law, University of Southern California,
Exchange Bldg., Los Angeles, Cal.

## **CURRICULUM**

In addition to the following, special lectures are provided during the year upon subjects which though not really required in a legal course, are yet of much value to those desiring a well rounded knowledge of the law.

Unless otherwise specified the method of instruction is by text-book and selected cases.

On account of the large number of students enrolled, the classes are divided into several sections. These meet at different times of the day so that students may select a section to suit their own convenience.

The duration of each period specified below is one and one-half hours.

#### FIRST YEAR.

## First Semester.

Criminal Law (Two Periods)	Frank R. Willis
***************************************	Percy V. Hammon
Elementary Law and Blackstone (Four Pe	riods)Gavin W. Craig
Torts (Two Periods)	Kemper B. Campbell
Personal Property (Lectures, One Period)	Frank M. Porter
Use of Books	T. W. Robinson
· Second Semester.	
Contracts (One Period)	Clair S. Tappaan
Criminal Procedure (Penal Code and Sele	
Period)Frank R. Willis	and Percy V. Hammon
Damages (One Period)	Kemper B. Campbell
Torts (Two, Periods)	
Domestic Relations (Two Periods)	James W. Taggart
Bailments (Two Periods)	Frank M. Porter
Negligence (One Period)	Wm. P. James
Agency (One Period)	

Moot Court (One Period).

## SECOND YEAR.

## First Semester.

Wills (Two Periods)	Frank M. Porter
Common Law Pleading (Two Periods)	H. C. Dillon
Private Corporations (One Period)	George H. Woodruff
Real Property (Two Periods)	Gavin W. Craig
Briefing	T. W. Robinson
Equity Jurisprudence (Two Periods)	H. C. Dillon
Constitutional Law (One Period)	W. A. Cheney
Moot Court (One Period).	

## Second Semester.

Private Corporations (One Period)George H. Woodruff
Equity Jurisprudence (Two Periods)
Real Property (Two Periods)Gavin W. Craig
Commercial Paper (Two Periods)Myron Westover
Partnership (One Period)
Justice Court Practice, Code of Civil Procedure of Califor- nia and Lectures (One Period, Part of Semester)
Patents (Lectures, One Period, Part of Semester)
Statutory Interpretation (One Period)T.•W. Robinson
Constitutional Law (One Period)
Water Rights and Irrigation Law (One PeriodGavin W. Craig
Moot Court (One Period).

## THIRD YEAR.

## First Semester.

Code Pleading (Two Periods) :	James G. Scarborough
Evidence (Three Periods)	Frank M. Porter
Public Corporations (Two Periods)	Walter F. Haas
Equity Pleading (One Period)	H. C. Dillon
Mining Law (One Period)	Lewis A. Groff
Legal Ethics (Lectures)	John D. Pope
Insurance Law (Twelve Lectures)	Seward A. Simons

## Second Semester.

Code Pleading (Code Civil Procedure Two Periods)	
Real Property (Four Periods)	Gavin W. Craig
Evidence (Three Periods)Frank M. Porte	
Federal Procedure (One Period)H. C. Dillor	
Bankruptcy (Five Lectures)W. T. Cra	
California Lien Law (Five Lectures)Frank James	
Appeals (Three Lectures)	
Admiralty (Eight Lectures)E. W. Tut	
Underground Waters (Three Lectures)George H. Hutton	
Moot Court (One Period).	

# NIGHT SCHOOL

In response to a general demand for night classes in law, a Night School was established at the beginning of the year 1908-1909, and the first year's work, as hereinafter outlined, was given. The night course consists of the same subjects as the day course, but requires four years for completion. The instructors are the same as those of the Day School. Students may take as many or as few subjects as they desire, and one may complete the course by taking two years in Night School, two Summer Schools, and the third year with the regular day Senior Class. Graduates of the Night School receive the degree of Bachelor of Laws (LL.B.), and under the laws of the State of California are admitted to the Bar without examination. During the year 1909-1910 classes will be conducted in the first two years of the Night School, and it is expected that each additional year's work will be added until the entire four years' course is offered.

#### CURRICULUM OF NIGHT SCHOOL.

## FIRST YEAR.

## First Semester.

Contracts (Two Periods)	Clair S. Tappaan
Criminal Law (Two Periods)	Frank R. Willis
Elementary Law and Blackstone (Two	
Torts (One Period)	,
· /	Lewis A. Groff

## Second Semester.

Contracts (One Period)
Criminal Procedure (One Period) Frank R. Willis
Elementary Law and Blackstone (Two Periods)Gavin W. Craig
Torts (Two Periods)
Bailments and Carriers (Two Periods)Frank M. Porter

#### SECOND YEAR.

## First Semester.

TO DIE O
Negligence (One Period)
Damages (One Period) Kemper B. Campbell
Private Corporations (One Period)George H. Woodruff
Water Rights and Irrigation Law (One Period)Gavin W. Craig
Wills and Probate Law (Two Periods)Frank M. Porter
Justice Court Practice (One Period, Part of Semester)
Albert Lee Stephens
Patents (One Period, Part of Semester)James R. Townsend
Use of Books (One Period, Part of Semester)T. W. Robinson
Second Semester.
Personal Property (One Period)Frank M. Porter
Commercial Paper (Two Periods)Myron Westover
Partnership (One Period)
Statutory Interpretation (One Period)T. W. Robinson
Common Law Pleading (Two Periods)
Private Corporations (One Period)
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Interstate Commerce (Twelve Lectures)	E. W. Camp
Codification (Twelve Lectures)	William W. Phelps
Extraordinary Legal Remedies (Sixteen	Lectures)
	Curtis D. Wilbur
Public Officers (Ten Lectures)	Walter F. Haas
Conflict of Laws (Thirty Lectures)	E. W. Tuttle
Mortgages (Four Lectures)	J. W. Swanwick
Logic (One Period)	James Harmon Hoose
First Course, Jurisprudence	George H. Smith

I. Elements of Jurisprudence.

(1) Of the Several Kinds of Rights.

(2) Of the Subject Matter of Jurisprudence, or of Persons, Things or Events.

(3) Of the Principles of Jurisprudence.

II. Juristic Encyclopedia.

(1) Of Morality.

- (2) Of the Theory of the State.
- (3) Of the Law.

(4) Of Logic.

III. Historical Review of Modern English Theories.

Five Periods a Week during First Semester.

The following are books of reference to be used in connection with the subjects of Elements of Jurisprudence and American Common Law:

(1) Institutions of Justinian.
(Translation and Original.)

(2) Mackeldey's "Roman Law."

(3) Ortolan's "History of the Roman Law."
(Translation, Butterworth & Co., 7 Fleet St., London.)

(4) "Outlines of the Science of Jurisprudence." (Translated and Edited from the Juristic Encyclopedias of Puchta, Friedlander, Falch & Ahrens, T. & T. Clark, Edinburgh.)

(5) Theory of the State.

(Bluntschli, Clarendon Press, Oxford.)

(6) Hobbes' "Leviathan."

- (7) Herbert Spencer's "Social Statics," and "Justice,"
- (8) Kant's "Philosophy of the Law."

  (Translation, T. T. Clark, Edinburgh)
- (9) Austin's "Jurisprudence."
- (10) Holland's "Jurisprudence."
- (11) Markby's "Elements of Law."
- (12) Aristotle's "Politics," "Ethics," and "Rhetoric." (Bohn's Library.)
- (13) Whateley's "Logic."
- (14) Jevon's "Lessons in Logic."
- (15) Sigwart's "Logic."
- (16) Bacon's "Advancement of Learning," "Novum Organon" and "Essays."
- (17) "Elements of Right and of the Law." (Smith, Callaghan & Co., Chicago.)
- (18) "Theory of the State."
  (Smith, "American Philosophical Society," Philadelphia.)
- (19) "Logic or the Analytic or Explicit Reasoning." (Smith, Putnam Sons, N. Y.)
- (20) "Logic and Its Uses; a Lawyer's View." (Smith, "American Law Review.")

# PUBLIC SPEAKING, VOICE BUILDING AND EXPRESSION.

A course in Public Speaking, Voice Building and Expression is offered by Miss Beulah Wright, Dean of the College of Oratory, University of Southern California.

The course is designed to meet the needs of the students of the Department of Law. The work is of the most practical character.

It is the aim to teach a student to be simple and natural in his expression, and when occasion shall demand, powerful, but at all times to preserve his individuality. A great deal of stress is laid spon the development of the voice for purity, flexibility and control.

Most of the work done in classes is of an extemporaneous nature, such as short talks on current public questions, argumentation and debate. Attention is also given to the study

and delivery of great prations, as well as the preparation of original orations,

Students doing work in these classes may receive credit in the College of Oratory to apply upon either the Diploma Course or the Certificate Course. It is possible for a student to complete one of these courses during his three years' work in the College of Law.

#### SUMMER COURSE.

During each summer classes are conducted in a limited number of subjects. During the summer of 1910 the subjects to be taught will be Elementary Law and Blackstone, Bailments and Carriers, Common Law, Pleading, Wills and Probate Law, Partnership, Water Rights and Irrigation Law and a subject in the Senior Year, not amounting to more than two periods.

#### COURTS.

The Supreme Court of the State holds two sessions each year in Los Angeles, and the students have opportunity to hear carefully prepared arguments by the ablest lawyers of the country, and are required to attend Court not less than ten days each semester.

The United States Circuit and District Courts are held here and opportunity for study of the Federal practice and procedure is thus offered, on both law and equity sides.

The Appellate Court for the Southern District of California holds its session in Los Angeles.

The Superior Court of Los Angeles County, consisting of nine departments, is in session the entire year.

Three city Police Courts and four Township Justice's Courts, in which students in the Middle and Senior years can get some actual practice before admission to the bar, are in session daily during the entire year.

#### LIBRARY.

Students are allowed the use of the Los Angeles County Law Library, consisting of twenty thousand (20,000) volumes, upon the same terms as members of the bar.

The College of Law has a good working library of its own, consisting of State Reports, the Reporter System, Text and other case books, numbering in all 2,200 volumes.

#### MOOT COURTS.

Students of the Freshman Class in the second semester, and members of the second and third year classes, are assigned not less than two cases during each semester, which they are required to conduct through the Superior Court, and one of which must be taken up on appeal through the Appellate or Supreme Courts. Controversies are arranged and assigned upon statements of facts for trial.

All of the steps incident to a contested trial are taken, including preparation of pleadings, argument of motions and demurrers, preparation of briefs, taking of depositions, impanelling of jury, challenges, introductions of evidence, argument of case, etc.

Students of the First and Second years act as witnesses, client and jurors. These trials are presided over by a member of the Faculty and are conducted as nearly as possible in the same manner as trials in actual courts. Each student in the First and Second years must write at least three briefs which are examined and graded by the Judge of the Moot Court.

The Moot Courts consist of the Justice's Court, Superior Court, the Court of Appeal and the Supreme Court. The procedure conforms to that of the State of California with pleadings under the Code. Each firm is composed of a member of the Senior class and a member of the Junior class. Sessions of the courts are held weekly. A student acts as clerk of the Moot Court, and is at the Law School throughout the day.

Such a course of practical training is of inestimable value to one who intends to locate in California, or in any of the Western Code states.

Those desiring further information relative to the College of Law may obtain it by writing for its special announcement.

# COLLEGE OF DENTISTRY

# **CALENDAR**

#### 1910.

September 25	Examinations for removal of conditions.
October 4	Tuesday, Opening exercise in main lecture room, 8 p. m.
October 5	Wednesday, Lecture Sessions begins for First, Semester.
October 15	Saturday, Registration of Students closed for Lecture Session of 1909-1910.
November 23	Thanksgiving recess begins 6 p. m.
November 28	Monday, Thanksgiving recess ends 8 a. m.
December 23	Friday, Christmas recess begins 6 p. m.
	1911.
January 2	Monday, Christmas recess ends at 8 a. m.
February 1	Wednesday, Lecture Session begins for Second Semester.
February 22	Wednesday, Washington's Birthday.
May 17	Wednesday, Freshman and Junior Ex aminations begin.
June 15	Thursday, Commencement.

#### COLLEGE OF DENTISTRY.

The year of 1910 promises to be as prosperous as any in the history of the College of Dentistry. In the past ten years the population of Southern California has nearly quadrupled, and the history of this department of the University has also been one of steady growth and improvement. The recent annexation of Wilmington and San Pedro to Los Angeles, which brings the harbor at San Pedro under the jurisdiction of our city, together with the completion of the Panama Canal and the Owens river water project, are positive factors in assuring the continued growth of this country.

The College will keep pace with this prosperity. Our present building, which was erected especially for the teaching of dentistry but five years ago, is now too small to accommodate our classes. Before the opening of the next term it will be necessary for us to either make additions to the present quarters or build again.

Students are coming to us from every State in the Union and every country in the world.

The College has the enviable reputation of being located in a city the most beautiful and with the loveliest climate of any in the world where Dentistry is taught. This, combined with the fact that the College is incorporated strictly as an educational institution, and is ever willing and ready to make any expenditure for the betterment of the school, is building up the student body.

Our Faculty is composed of many noted and excellent teachers. A membership in the National Association of Dental Faculties is maintained

## ADMISSION REQUIREMENTS

Extract from Code of Rules of the National Association of Dental College Faculties:

"No college of this Association shall give credit for a full course to students admitted later than ten days after the opening day of the session, as published in the announcement."

In case one is prevented by sickness, properly certified to by a reputable practicing physician, from complying with the foregoing rule, the time of admission shall not be later than twenty days from the opening day.

Candidates for admission will not be permitted to matriculate for any session other than that immediately succeeding the date of matriculation.

For matriculation in the Freshman class without examination the candidate must have 16 units in subjects representing High School work. Applicants may be admitted upon 12 units, provided that the 4 additional units shall be made up before entrance upon the second year of the course.

Prospective students who have not these preliminary requirements, and those who are studying with a view to taking up the profession of dentistry, will be advised by the Dean as to the most advantageous course to elect.

In lieu of such units the applicant will be required to pass a matriculate examination, which shall be the equivalent of that forming the basis of the certificate of required preliminary education.

No student can be received who is not present within ten days after the opening day as announced in the Bulletin, except in cases of sickness, when ten days' additional time will be allowed.

## MEDALS.

- 1. The Cave Medal is given to the student making the best piece of Prosthetic Technic work.
- 2. The Los Angeles County Dental Society Medal is given the Senior who has made the best average on theoretical work during the College course.
- 3. The Ford Medal is given to the student making the best piece of Porcelain Technic work.
- 4. The Atwater Medal is given to the student making the best piece of Operative Technic work.
- 5. The Eshelman Medal is given to the Freshman student who has the best technic work for the year.

\$155.00

## FEES AND EXPENSES

Fees payable in two equal installments—October 15th and February 1st.

No student will be admitted for less than the stated fees.

Freshman Year.	
Matriculation fee	\$ 5.00
Lecture ticket	4 # 0 00
	\$155.00
Junior Year.	
Matriculation fee	\$ 5.00
Lecture ticket	150.00
	\$155.00
Senior Year.	
Matriculation fee	
Lecture ticket	150.00

These fees include dissecting and all laboratory fees. There are no other charges made by the College.

## DEPOSITS, BOOKS AND INSTRUMENTS.

Before beginning his work, each student will be required to procure the instruments necessary for his use.

The approximate cost of books and instruments, all of which are needed after graduation, is as follows: (This includes a dental engine, and gives the student a practical outfit, so that he can start into practice on finishing his course without much additional expense for instruments. A list of the instruments is furnished the student on his arrival.)

Freshm	an year	100.00
		135.00
Senior	year	85.00

Address all communications to the

COLLEGE OF DENTISTRY, U. S. C., Lewis E. Ford, D.D.S., Dean, 304 East Fifth Street, Los Angeles, California.

## DEPARTMENTS OF INSTRUCTION

#### OPERATIVE DENTISTRY.

Professor Ford, Associate Professors Jordan and Gray.

In this department the student is instructed in the latest methods of operative procedure, the fundamental principles being taught in the Freshman and Junior Technic courses.

All of the different conditions, materials and methods of manipulation are considered, so that the student when graduated is competent to enter into active practice and give hispatients the very best of dental services. In order to develop the judgment and diagnostic ability of the student the Seniors during the second semester are required to study each case presented to them in the Infirmary. When they have decided upon the best method of procedure they then call one of the instructors, who will confirm or correct their opinion.

If qualified at the beginning of the second semester, the Junior students are admitted to the Infirmary for practical operations

A very thorough course is given in the preparation of cavities and construction of porcelain and gold inlays.

In connection with this department, Professor Jordan will give a course of lectures on The Care and Management of Children's Teeth.

This course will consider pre-natal influences, and the nutrition and development of the child as relating to the teeth; the treating, filling and extraction of children's teeth; the disturbances found in the oral cavity incident to the first dentition, and the management of children in the office.

Note.—All of the subjects outlined by the Faculties Association are taught, but this bulletin permits of outlining only those most closely related to the subject of Dentistry.

#### PORCELAIN.

Professor Eshelman, Dr. Goodman, Dr. Hopkins.

Porcelain is attracting more and more attention. It is the most artistic method of restoring teeth or parts of teeth. Cavities in the natural teeth can be filled with porcelain inlays, which cannot be detected.

Students of this school will be expected to attain a high degree of proficiency in the manipulation of porcelain. The College is equipped with Townsend, Hammond and Custer electric furnaces, a large oil furnace for continuous gum work, fifteen Jenkins gas furnaces and machines for casting of gold inlays. Students are taught how to construct inlays by the use of Gold and Platinum matrices, the different blending of colors, and also a complete course of lectures is given covering the entire subject.

Opportunity is afforded the Seniors for making a technic continuous gum case.

## OPERATIVE TECHNICS.

Professor H. Gale Atwater, John G. Sheafer, D.D.S.

This important department is given especial attention in our College, for we realize that the future success of the student, as well as the dentist, lies in first instructions.

It is our aim to make this department one of the strongest in the College. The object of this course is to afford a thorough technical training in operative procedures, preparatory to practical work in the Infirmary; to develop manipulative skill and to give the students an intimate knowledge of the tissues upon which they are to operate, of the physical qualities and adaptation of the materials to be used, and facility in the use of instruments by systematized practice upon teeth out of the mouth.

Special attention will be given to a study of pulp chambers and root canals, their number, size, form, and their relation to the outer surface of the teeth. Sections of the natural teeth will be prepared by each student in such a manner that these features will be clearly shown.

The student will construct models carrying tooth forms of natural teeth, upon which operations will be performed as in actual practice. This will consist in the preparation of cavities and a study of their classification and forms: the study of enamel and direction of cleavage on different parts of the crowns of the several teeth with special reference to the best form and finish of margins of cavities for filling; the cutting of dentine and the various methods employed in anchoring fillings; the removal of carious tissue; the management of pits and fissures and the general shaping of the cavity. Instruction will also be given in the application of the rubber dam, the methods employed in gaining space, the use of clamps, wedges, separators, etc. In conjunction with practice in cavity preparation, there will be a study of filling materials and their manipulation. This course is designed to thoroughly ground the student in the principle of operative dentistry and prepare him to intelligently prosecute the practical work of the Infirmary.

## COMPARATIVE DENTAL ANATOMY.

Professor Bebb.

This course covers a comparison of the teeth and surrounding tissues of man with those of the lower order of animal life. This is made more interesting and instructive to the student by the collection of crania, numbering 1500 specimens, which our museum affords, and a complete series of lantern slides for illustrating the lectures.

## ORTHODONTIA.

Professor Jas. D. McCoy.

This subject is taught during the Junior and Senior years.

During the Junior year the course consists of a series of lectures illustrated by numerous lantern slides. Beginning with normal occlusion the lectures take up the different classes of mal-occlusion, special attention being given to diagnosis and treatment. This is followed by several lectures on retention, followed by a course in model and appliance making.

In the Senior year the instruction is entirely clinical and is given at the individual chair in the Infirmary.

#### CROWN AND BRIDGE WORK.

Professor Bowman, Dr. Engstrom.

Crown and bridge work pertains both to the operative and the prosthetic, and yet it occupies such an important field of dentistry that the College deemed it wise to make of it a

separate department.

Students will receive a complete course in Crown technique, as well as lectures during their Freshman year. Juniors will receive a complete course in Bridge technique during the first semester, and will do practical work in the Infirmary during the balance of the year. Seniors will perform practical work in the Infirmary. The principles of construction of all of the various forms of crowns and bridges at present in use will be taught, also a study will be made of the stress applied by the muscles of mastication to the teeth, both singly and collectively, with its bearing upon crown and bridge construction, including the conditions under which bridges should or should not be used. The clinical facilities are excellent, requiring Porcelain and Gold Crowns and Bridges.

## PROSTHETIC DENTISTRY.

Professor Eshelman, Dr. Engstrom.

Realizing that there is no branch of dentistry where students are ordinarily so deficient as in the prosthetic department, we have aimed to develop a practical working course in this line, to the end that our graduates may be able to do this class of work in a practical and artistic manner.

From an artistic standpoint we teach the higher possibilities of the art of restoring the features of the face, together with the staining and grinding of the teeth to meet the conditions of the individual type of the patient.

The fundamental principles of atmospheric pressure, leverage, etc., are dwelt upon, that the student may intelligently meet the conditions presented in difficult cases.

Both technical and practical denatures of all kinds are made, such as vulcanite, celluloid, aluminum, Watts metal, weighted rubber, gold and porcelain continuous gum. Particular attention is paid to the latter, that the student may be able to restore the teeth of patients by the highest type of artificial appliance known to our profession.

Both practical and technic interdental splints are made for fracture cases, as well as obturators and velums for cleft palate cases.

A dentist may be called upon to restore loss of tissue adjacent to the oral cavity, and that our students may know how to do this class of work, they will be taught the making of celluloid ears and noses.

An overabundance of Infirmary patients, together with all modern appliances for doing the work under the direction of the most competent of professors and demonstrators, enables a student to develop a high degree of skill in this department.

#### INFIRMARY.

Our Infirmary and clinical facilities are our special pride. The room is large and beautiful, facing north (the ideal light), and is equipped with every modern convenience. The number of patients who apply here for services is truly phenomenal, and no student need fear that his practical education will be neglected. Last year more than four hundred patients in excess of the number that the students could find time to attend to applied for services. From this great clinic we are able to select for the student all of the operations in any given line in which he may desire to specialize, or where he feels that he needs extra experience and practice.

We have arranged the lecture schedule in such a manner that the students can work with little interruption from nine in the morning until four in the afternoon.

In charge of the work as professors and demonstrators we have a number of teachers of long experience and unquestioned ability. The student has the advantage of the personal contact and instruction of these competent men, and is not taught by students or recent graduates.

## COLLEGE OF MUSIC

The Calendar of the College of Music is the same as that of the College of Liberal Arts.

The musical department of the University is now in its twenty-fifth year. By a faithful adherence to high standards its faculty have brought it to a well recognized position in higher musical education. Its diplomas have all the prestige which comes from its long establishment and the name of the University. Its graduates and former students are taking prominent places in the musical world all over the Southwest, both as teachers and performers.

Extended courses are offered in a wide range of musical subjects. The end sought in every branch pursued by the student is such thoroughness as will give him a genuine accomplishment and true culture or insure him the mastery expected of a professional

## ADVANTAGE OF COLLEGE STUDY.

The general spirit of earnest study characteristic of an institution of higher learning such as the University has been found to react very beneficially on the student of music, who, too often, is inclined to superficiality. Breadth of character and liberal ideas are more surely attained in the atmosphere of general education than in that of specialized study.

Among the many points of superiority of college study in music may be mentioned the regular attendance at lessons required; the musical atmosphere created by the recitals, lectures and class work; the incentive to greater effort by observing the proficiency of others; the sharpening of the critical faculties and the development of taste by hearing other students perform; the opportunity given for obtaining in class work at very slight expense, the very best of training in the theoretical studies such as harmony, theory and history of music—studies which are essential to the well-grounded musician and which the private teacher cannot touch upon in the lesson hour.

## EQUIPMENT.

The College of Music occupies the south wing of the main building. The interior is thoroughly modern and artistic in finish and furnishings. It contains a commodius and elegant reception hall, furnished as a reception and reading room, also cloak room and lavatories, lecture hall and recital hall, and a large number of exceptionally large and attractive studios.

The school is equipped with a full complement of teaching and practice pianos. The pipe organ in the college chapel is available for practice only to our students. It is blown by electric motor and the charge for rental is no more than blower's fees would be in an organ blown by hand.

#### RECITALS.

A feature of the greatest value to the students is the weekly pupils' recitals, at which the pupils are expected to play or sing before the whole school, as their teachers may direct. Public performance is an art in itself, and can only be mastered by many public appearances. Pupils who acquit themselves creditably at the recitals before the music students only, are allowed to appear at the public recitals of the school. A practical familiarity is thus gained with the music of the other branches represented outside of the student's specialty. Recitals are also given by the faculty from time to time, who are also frequently heard in the recitals given by the advanced pupils. Music students have free admission to all public exercises of the school.

## SIGHT SINGING.

Classes in sight singing are offered without charge to all regular pupils of the department. To others a small fee is charged. An opportunity is here given to acquire proficiency in reading at sight, an accomplishment equally valuable to both player and singer.

## PUBLIC SCHOOL MUSIC.

This department is designed to supply the great demand for teachers competent to teach and supervise music in the public schools. The course aims to meet the requirements of the boards of examiners and includes a thorough drill in sight singing, ear training, history and elementary harmony and a study of the best methods of instruction. The course requires two years, two hours per week, for supervisors and one-half this amount for regular teachers. In case a sufficient number of students desire to complete the course in one year, classes will be organized to meet four times per week.

#### NORMAL CLASSES FOR PIANO STUDENTS.

A course of twelve class lessons or lectures is given each year by the faculty and others on matters relating to the subject of teaching. Methods of instruction and technical problems are considered. Lists of teaching material are given and reviewed and a question box leads to interesting and valuable discussions. This course is required of all graduates.

#### THE COURSE OF STUDY.

The educational system of the school is divided into two general departments: the Preparatory and the Normal or Collegiate.

No requirements are made for admission, but applicants should be prepared to perform one or two musical selections of different styles representative of their previous work.

All beginners are received in the preparatory department, whether they plan for the regular advanced courses or merely desire the best of training during the time they devote to the study. Correct elementary teaching is the most important and, in some respects, the most difficult of all. It is the aim of the school to advance pupils as rapidly as is consistent with thoroughness and the formulation of correct habits.

The Normal or Collegiate department is designed for students preparing for the profession as teachers and artists and for amateurs desirous of obtaining a thorough training in the art and science of music.

#### DIPLOMAS.

The diploma of the University is given at the completion of the Normal or Collegiate course.

The requirements for graduation in any department are the completion of the prescribed course in that department, at least

one year's work in which must be done in this school; the completion of the Normal course of four semesters in harmony and ear training, one semester in musical theory and two semesters in musical history, and the public performance during the senior year of an entire program under the direction of the department teacher, and, for piano students, the Normal class work.

Organ students will also be required to take the semester of "key-board harmony." Vocal students are required to take one year of piano work.

#### TEACHERS' CERTIFICATES.

Teachers' Certificates will be given to those who have completed the work of the Normal course, but who for any reason are unable to give the public recital required for graduation. They will, however, be required to give before the faculty a program of a somewhat less exacting nature than that required for the diploma.

#### COLLEGE CREDITS.

Credits will be given in the College of Liberal Arts for musical work as follows: Two semester hours per term will be credited to students making passing grade in any one of the theoretical studies or advanced vocal or instrumental work, the total credits in any case not to exceed fifteen.

## BUSINESS REGULATIONS.

Students entering after the opening of the term will register for the remaining portion, and will be charged pro rata, except that no deduction will be made for absence from the first two lessons. The work of the term begins on the date advertised, and students who enter late will find themselves behind their classes.

Students taking less than one-half term in class work will be charged for the half term; those taking more than a half term will be charged for the full term.

All students are required to attend the regular recitals of the school and to take part in them whenever so assigned.

No deduction will be made for occasional absence from lessons or for lessons discontinued without notice. Lessons missed will

be made up to pupils, if notice of the intended absence is given three days in advance.

Lessons falling on national holidays are not lost to students.

Sheet music will be furnished students at teachers' rates, if paid for on delivery.

A discount of fifteen per cent is allowed to the children of Methodist ministers on vocal and instrumental work.

Settle all accounts at the office only, making checks payable to THE DEAN.

TERMS: Tuition is payable strictly in advance at the beginning of each half term.

In case an extension of time is absolutely necessary, arrangements must be made with the Secretary, the terms of which will be stated on the bill and must be strictly adhered to.

For courses of study and further particulars send for special hooklet.

#### TOTAL EXPENSES

(By the Semester, Nineteen Weeks.)

## Mr. Skeele.

Piano or Pipe (	Organ.			
45 minutes	once	a	week	\$47.50
45 minutes,	, twice	a	week	95.00
30 minutes	, once	a	week	38.00
30 minutes,	twice	a	week	76.00

## Mr. Pemberton.

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Violin.		

un.					
1	hour,	once	a	week	38.00
1	hour,	twice	a	week	76.00

168		Universi	ty of	S	outhern Co	ilifornia.	
Mr. S	EILING						
т,	. ,.						
V	iolin.						47 50
	00	mmates,	twice	a	WCCK		70.00
Miss 7	ROWB	RIDGE.					
P	iano.						
		minutes,	once	a	week		33.25
	45	minutes,	twice	a	week	***************************************	66.50
	30	minutes,	once	a	week		28.50
	30	minutes,	twice	a	week		57.00
Mrs. I	Зкімн	ALL.		,			
P	iano.						
_	45	minutes.	once	a	week		28.50
	30	minutes,	twice	a	week		47.50
Miss A	Arnet	T.					
P	iano.						
	45	minutes,	once	a	week		23.75
	45	minutes,	twice	a	week	***************************************	47.50
	30	minutes,	twice	a	week		38.00
					_		
Miss 1	PATTO	٧.					
P	iano.						
	30	minutes,	once	a	week		19.00
	30	minutes,	twice	a	week		38.00

Dunning System.

5.00

Mrs. Robbins.	
Vocal.	
40 minutes, once a week	47.50
40 minutes, twice a week	
30 minutes, once a week	
30 minutes, twice a week	57.00
Mr. Whybark.	
- Sight Singing, or Public School Music.	
I hour, Private Lessons, once a week	28.50
1 hour, Private Lessons, twice a week	38.00
Sight Singing.	
45 minute classes, twice a week(*Free to Music Students.)	*4.75
Public School Music.	
1 hour classes, twice a week	15.00
Miscellaneous Expenses.	
Normal Class, six lessons per semester	\$ 6.00
Rental of Pipe Organ, one hour each day	
Rental of Pedal Piano, one hour each day	8.55

Rental of Piano, one hour each day...... 4.00 Certificate Fee

## COLLEGE OF ORATORY

The system used in the College of Oratory is based upon the Cumnock Method, founded by Robert McLean Cumnock, L.H.D., Director of School of Oratory, Northwestern University, Evanston, Illinois.

The aims of the College are:

To develop the inner man.

To prepare the body to express the inner man.

The method is neither imitative nor mechanical, but is founded upon psychological principles.

The pupil acquires the power to interpret for himself and to express emotions through his own individuality. The result is a naturalness and simplicity of manner together with personal power.

A great deal of attention is paid to the Department of Public Speaking. Ministers, theological students, or any who may have occasion to address audiences, will find this work of great value.

The Calendar of the College of Oratory is the same as that of the College of Liberal Arts.

# COURSES OF STUDY. (Class Work.)

- Course 1. Fundamental principles of expression, English phonation, enunciation, interpretation of selections from Cumnock's Choice Readings. Two hours, first semester.
- Course 2. Voice building, breathing, tone placing, bodily expression, interpretation of selections from Cumnock's Choice Readings. Two hours, second semester.
- Course 3. Interpretation from modern writers: Kipling, Barrie, Van Dyke, Riley, Kate Douglas Wiggin, Maclaren, Dunbar and others. Two hours, both semesters.
- Course 4. A study of Lyric Poems: Wordsworth, Browning, Tennyson, Burns, Lanier, Arnold and others. Two hours, either semester.

Course 5. Voice, Relaxation, Concentration, Breathing, Tone Placing, Rhythm, Phrasing. Two hours, one semester.

Course 6. Debate and Extemporaneous speaking. Two hours, either semester.

Course 7. Oratory. A study of masterpieces of Oratory. Text, Sears' History of Oratory. Two hours, either semester.

Course 8. Shakespeare: Julius Caesar, or King Richard II; Twelfth Night, or Two Gentlemen of Verona; Midsummer Night's Dream. Two hours, either semester.

Course 9. Artistic Anatomy. A summary of Anatomy intended for the study of forms, attitude and movements. Text: Duval's Artistic Anatomy. Two hours, first semester.

Course 10. Repertoire, abridgement of books and classics for public presentation, arrangement of program, impersonation. Advanced students only. Two hours, second semester.

Course 11. Bible and Hymn Reading; Vocal Expression of the Bible and Hymns, Voice Building. Text: Curry's Vocal Interpretation of the Bible. Two hours, either semester.

Course 12. Assembly. A study is made of the art of telling stories to children. One hour, both semesters.

Course 13. Dramatic Club. Interpretation and presentation of the drama. A study of dramatic law. Two hours, both semesters.

• Course 14. Physical Expression. Two years of training for physical development and the acquiring of grace and harmony in all bodily movements. Two hours, both semesters.

## DIPLOMA COURSE.

The work required in this course consists of: Three years of private work, two lessons per week; the fourteen courses; two years' gymnasium work; College work sufficient to enroll a student as a Junior in the College of Liberal Arts.

## CERTIFICATE OF EXPRESSION.

The work required in this course consists of: Two years of private work, two lessons per week. Courses 1, 2, 3, 5, 9, 10, 12, 13, 14, and two of the remaining five courses to be elected; one year of Gymnasium work.

Students wishing to complete this course of study must have at least one year of History, and two years of English.

## CERTIFICATE OF PHYSICAL TRAINING.

The work required in this course consists of: Two years of private work in physical training, two lessons per week. Courses 1, 2, 3, 5, 9, 13, 14 and three of the remaining seven courses to be elected; two years of general work in the Gymnasium.

Students wishing to complete this course must have at least one year of Physiology or Hygiene.

#### RECITALS.

Pupils' recitals are given every two weeks, on Wednesday at 3:50 p. m., in the Athena Literary Hall. The participation in these recitals by students is required that the student may have practice and gain confidence in appearing before audiences. All students enrolled in the school are expected to be present at each recital. Admission to friends is by card.

Faculty recitals are given each semester by the instructors in the school, or by artists from the outside.

## PHYSICAL EXPRESSION.

"Is not that the best education which gives to the mind and to the body all the force, all the beauty and all the perfection of which they are capable?"—Plato.

Special classes in Physical Culture are conducted for the Oratory students. The laws which underlie Physical Expression are here studied and such exercises are given as will best develop the pupil toward health, expressiveness of movement and grace. It is the aim of this work to bring the body under perfect control of the will, and to teach the principles of gesture in such a manner as to give spontaneity and freedom from affectation.

## CHILDREN'S DEPARTMENT.

This course is planned for children under twelve years of age. Classes are organized in expression, where the children are trained in common reading and in the delivery of recitation.

Classes are also formed in Physical Culture, where children are taught correct breathing, standing, walking, sitting, and ease and lightness of movement. Exercises are given to correct individual faults of body, such as round shoulders and hollow chests.

#### TUITION.

Fees are payable to the Dean in advance.

Instruction per semester (18 weeks).

Full course, including two private lessons per week, four or more classes in Expression, one study in the Preparatory School, or College of Liberal Arts.

Paid in advance for the year	\$130.00
Full course, per semester	70.00
Two private lessons per week (30 minutes)	50.00
One private lesson per week (30 minutes)	25.00
A course of ten lessons (30 minutes)	15.00
One private lesson per week (45 minutes)	37.50
A course of ten lessons (45 minutes)	22.50
Single lessons (45 minutes)	
Single lessons (30 minutes) 1.50 t	o 2.00
Class, two periods per week (55 minutes)	10.00
Dramatic Club, two periods per week (55 minutes)	10.00
Coaching plays (60 minutes)	1.50
PHYSICAL EDUCATION.	
Full certificate course	\$60.00
One private lesson per week (30 minutes)	25.00
CHILDREN'S DEPARTMENT.	
Two private lessons per week, Expression (30 minutes)	\$35.00
One private lesson per week, Expression (30 minutes)	20.00

A discount of 10 per cent on all private work will be given to ministers.

No tuitions are refunded except in cases of protracted illness.

A registration fee of \$5.00 is charged, which is included in the tuition. In case a refund is made the registration fee is deducted.

The diploma fee is \$10.00.

The certificate fee is \$5.00.

A student in the College of Liberal Arts may elect a maximum of fifteen hours in the College of Oratory.

University of Southern California College of Oratory,
Thirty-fifth Street and Wesley Avenue.
Miss Beulah Wright, Dean.

## COLLEGE OF FINE ARTS

#### CALENDAR.

#### 1910.

September 13, Wednesday....Enrollment.

September 15, Friday ......Instruction begins.

November 24-25, Thursday,

Friday.....Thanksgiving Vacation.

December 25, Sunday ........Christmas Vacation begins.

## 1911.

January 2, Monday......Christmas Vacation ends.

February 1, Wednesday......Second Semester begins.

June 15, Thursday......Commencement.

The college course in art teaching doubtless owes its splendid success to public appreciation. It makes its appeal equally to those who study for the sake of knowing and to those who desire and are willing to work for the front places in their profession.

It is one thing to know well the technic of a single branch of art and quite another thing to know in addition the technic of all branches as well as the history, purposes and trend of the great schools and periods, the theory of color and composition, the chemistry of pigments, the anatomy of the human figure and everything that can interest the worker as artist or teacher, the ability to judge pictures and to talk intelligently about them.

## COURSES OF STUDY.

#### Teachers' Course-Three Years.

First Year. Charcoal drawing from the cast, pencil drawing from landscape, mechanical drawing, including geometry, perspective and projection, art history and mythology.

Second Year. Drawing from life, portrait, draped and nude figure, composition, landscape, modelling, applied design, anatomy, water color, art history, sacred history, pottery and metai work.

Third Year. Painting in water color and oil from life and landscape, pen and wash drawing, composition, modelling, anatomy, design, art crafts in metal, wood and pottery; normal teaching course.

#### Architectural Course-Two Years.

First Year. Same as teachers' course.

Second Year. Building construction, plan drawing, perspective, historic styles, history of ornament, nature of materials, stresses and strains and mathematics.

## Sculpture-Three Years.

First Year. As in teachers' course.

Second Year. Modelling from life, draped and nude; portrait, art history, mythology, anatomy.

Third Year. Modelling from life, grouping, composition, historic monuments, anatomy and casting in plaster and metal.

## Degree Course-Four Years.

First, Second and Third Years. As in teachers' course. Fourth Year. Painting in water color or oil, life or land-scape, etching, pastel painting and design.

#### APPLIED ARTS.

The field of applied arts is often used by the student as a convenient stepping stone to the fine arts. There is always demand for expert workers in the crafts, and the College of Fine Arts is always alert to fit the student for salary earning and the stress of competition in active life. Among the most readily acquired and available crafts at the present time are wood carving, art glass, illuminating, scene painting, sign writing, jewelry and architectural perspective. It should always be understood that there are already too many untaught or half taught artisans in the field, but there is always room at the top.

#### SPECIAL BRANCHES.

The painting course includes drawing, technic in water and oil, anatomy, chemistry of pigments, color harmony and composition.

#### ANATOMY.

Artistic anatomy includes study of the skeleton, superficial muscles and movements from life.

## ILLUSTRATING.

This course embraces the technic of charcoal, pencil, pen and brush work, anatomy and the principles of design and composition.

## DESIGNING.

The course in design covers mechanical drawing, composition, the history and principles of ornament, color harmony, the constructive requirements of fabrics, glass work, fictile products, metal work, etc.

## METAL WORK-BRASS AND IRON.

Includes hammer work, etching, chasing, piercing, mould making, casting, forging and enamelling.

## JEWELRY.

This course includes wire and band work, casting, chasing, jewel setting, enamelling and design.

#### NORMAL ART COURSE.

Includes practical work in all the art branches taught in grade schools, as object drawing in pencil, charcoal and wash, silhouettes, potato printing, stencilling, cardboard modelling, colored chalks, harmony, design, etc.

#### WOOD CARVING.

Wood carving includes design, the selection of woods and the technic of carving, incising, bas-relief and the round.

#### ART GLASS.

Art glass includes design, hard metal mounting, leading, cuting, color harmony, painting on glass and firing.

#### POTTERY.

Pottery covers clay modelling, the potters' wheel, moulding, glazing, firing, underglaze painting, harmony and design.

#### GENERAL INFORMATION.

Certificates and other honors are conferred by the University of Southern California, with which institution the College of Fine Arts is affiliated.

Special branches may be taken separately from the course and certificates of proficiency will be granted on passing the required examination.

Credits for work done in other schools will be allowed when satisfactory proficiency is shown.

Students in special branches may enter the school at any time.

At the College of Liberal Arts in the University building

At the College of Liberal Arts in the University building classes are conducted in mechanical drawing, perspective, machine drawing, architecture and freehand drawing.

Lectures. There are three lectures per week on anatomy and other art subjects.

Rooms may be obtained in the immediate neighborhood, with or without board, at very moderate rates.

Frequent competitions are open to advanced students, entitling the winners to certain school privileges.

A gold medal is each year given to the student of any grade making the best record.

A scholarship for one year is given to the graduate making the best record.

## FEES (All day lessons).

			month
5 days per week	12.00	per	month
3 days per week	7.00	per	month
1 day per week	4.00	per	month
Single Lessons, each	1,00		
Full Collegiate Year.	95.00		
Per Semester	.50.00		
To post-graduates, per year	25.00		
Graduation Fee	5.00		
Art Crafts, per 12 lessons	10.00		

No charge is made for models, lockers, boards, easels, etc. Materials are furnished to students at wholesale rates.

All fees payable in advance.

Class hours: 9 a. m. to 12 M. 1 p. m. to 4 p. m.

## COLLEGE OF PHARMACY

#### CALENDAR

#### 1910.

October 17, Monday..........Registration Day.

October 18, Tuesday.......Instruction begins for First Semester.

November 24, Thursday.....Thanksgiving Vacation.

November 25, Friday.......

December 19, Monday.......Christmas Vacation begins.

#### 1911.....

January 2, Monday......Christmas Vacation ends.

February 1, Wednesday.....First Semester ends.

February 22, Wednesday..... Washington's Birthday.

May 22, Monday.....Final Examinations begin.

## COLLEGE OF PHARMACY.

The demands of pharmaceutical progress today require representatives who possess technical knowledge. The College of Fharmacy, an integral department of the University of Southern California, was organized to supply this demand; its aim and purpose being to create a means for higher pharmaceutical education, and supply a broaded foundation for the students' professional career by providing systematic instruction, and special training in those subjects requisite for the successful practice of pharmacy.

## LOCATION AND EQUIPMENT.

The College of Pharmacy is located at 35th Place and Wesley avenue, on the campus of the University of Southern California. The departments of pharmacy and chemistry are in the new Chemistry building. The laboratory for pharmacy and chemistry is large and thoroughly equipped with modern laboratory desks, hoods, water, gas, pharmaceutical and chemical apparatus, chemicals and all the conveniences of a modern laboratory. The balance room is a separate room, well lighted and supplied with twelve of the best analytical balances. The store room is accessible from the laboratory and is supplied with a large quantity of apparatus and chemicals of the best make.

The pharmacy and chemistry lecture hall is capable of seating about 100, is conveniently arranged and fitted with demonstration desk.

The botany and physiology laboratories are in the College of Liberal Arts. These are large, well lighted and thoroughly equipped. Each student is supplied with a desk and microscope.

The lecture hall has a capacity of about 200, and is provided with skylight and fitted with screens to adapt it to the electric projection apparatus and stereopticon which form part of the equipment.

The halls have been provided with glass cases in which are kept a large collection of specimens for demonstration and study.

## UNIVERSITY ADVANTAGES.

The close association of the student of the College of Pharmacy with those of the other colleges of the University on the campus affords valuable opportunities for social culture and attending lectures on subjects of vital interest to the student.

## COURSE OF INSTRUCTION.

The system of instruction will include lectures, demonstrations, recitations, written and oral examinations, as well as individual instruction in operative and dispensing pharmacy; organic, inorganic and analytical chemistry; botany, materia medica, pharmacognosy, toxicology, hygiene, physiology, sanitary science, food and drug analysis, and microscopy, with special lectures upon business topics especially suited to the retail pharmacist.

The session will open October 17, 1910, and will continue until June 3, 1911, and the schedule will be conducted during the forenoon so as to allow students the privilege of retaining their positions as clerks in the stores of Los Angeles and neighboring towns while attending college. The hours of instruction are from 8 a. m. to 12 M.

## REQUIREMENTS FOR ADMISSION.

Requirements for admission may be met as follows:

1. Graduation from an accredited High School or other preparatory school or approved rank.

2. The completion of one year of High School work or its

equivalent after eight years of Grammar School work.

Any delinquencies in the entrance conditions may be removed during the first year's work in Pharmacy in the Preparatory School of the University or with tutors approved by the College of Pharmacy.

Applicants must be at least seventeen years of age.

#### ADVANCED STANDING.

Students who have pursued courses of study in other colleges of pharmacy will be given credit for such portions of their work as are equivalent to the work required by this College.

## CONDITIONS FOR GRADUATION.

The candidate for the degree of Graduation in Pharmacy (Ph. G.) from this College must have fulfilled the following conditions:

- \*1. He must have attained the age of twenty-one years.
- 2. He must be of good moral character and must have maintained an irreproachable moral standing while in attendance at this College.
- 3. He must have attended two full courses in each of the departments of this College, or one course (the Senior) in this, after a course in some other recognized College or Pharmacy.
- 4. He must present a thesis embodying an account of some special work done under the supervision of the Faculty.
- 5. He must have attended at least 80 per cent of the lectures, reviews and laboratory work.

6. He must be present at Commencement unless excused by the Dean.

\*If under age, the degree will be conferred at the satisfactory completion of his course in college; but his diploma will be held by the Dean until this condition has been complied with.

#### EXAMINATIONS.

Written examinations are held from time to time during the session in each of the subjects taught by the professors, and the ratings received are recorded.

Attendance upon these examinations is Compulsory. Any student unavoidably absent is required to deliver to the professor a statement in writing of the cause of his absence.

Each student is required to attend at least eighty per cent of the lectures and laboratory sessions in each department and failing to do so becomes ineligible for examinations except where he presents a satisfactory excuse for absence prior to the examination.

Junior Examination (for admission to the Senior class.)— Junior students, whose rating shows satisfactory progress, receive certificates entitling them to admission to the Senior Class.

Junior students who receive a low grade in not over two subjects may enter the Senior class on condition, such conditions to be removed by examination before the end of the first semester of the Senior year.

Junior students who fail in more than two subjects are recuired to attend college another term.

First-course students from other colleges of pharmacy, who desire to enter the Senior class of this college, are required to produce evidence of their fitness, or to pass an examination.

Senior Examination. Students in the Senior class are examined for the degree of Graduate in Pharmacy at the end of the session, in Inorganic and Organic Chemistry, Pharmacy, Botany, Materia Medica, Pharmacognosy, Physiology and Toxicology.

Thesis. Senior students will be required to present a graduating thesis. Such thesis is to show the result of some original work in one of the departments of pharmacy. The subject of the thesis is to be approved of by the professor in whose department the thesis is selected. Thesis subjects should be selected not later than the middle of the first semester, and preferably during the Junior year so as to allow plenty of time for work.

Theses are to be handed in two weeks before the close of college.

## AMERICAN PHARMACEUTICAL ASSOCIATION PRIZE

The Senior student attaining the highest general average in his college work will be awarded a year's membership in the American Pharmaceutical Association.

#### EMPLOYMENT.

The course of lectures has been so arranged as to permit those who desire it to devote a portion of their time to employment.

The Secretary will keep a register of students seeking such employment, and will give every assistance possible in procuring it for them

#### ATHLETICS.

The Faculty encourage athletic sports for their value in developing the body, furnishing a means of pleasant recreation, as well as a source of social and ethical culture, and in cultivating the spirit of co-operative enterprise. One of the finest athletic fields in Southern California is on the campus, as well as a gymnasium completely equipped.

Students of the college in good standing are eligible to places on the football, baseball and track teams of the University.

Discipline and Good Order. All students are expected to observe the principles of good conduct and order while attending the College, and plain infractions of the rules will be referred to the Executive Committee of the Faculty, with recommendation of reprimand, suspension or expulsion.

Suggestions to Prospective Students. It would be to the advantage of students if they would matriculate a few days in advance of the opening exercises, secure boarding places, and fulfill the entrance requirements, so that their studies may not be interrupted in the beginning.

Board and Lodging. Good board and lodging vary in prices from three and a half to six dollars per week. Rooms for those who wish to board and lodge themselves will cost from six to ten dollars a month. By forming boarding clubs students may reduce the cost of board to two dollars a week.

A list of desirable rooms and boarding places may be obtained by addressing the Young Men's and Young Women's Christian Association of Los Angeles, or by inquiring at these organizations.

#### FEES AND EXPENSES.

Tuition Fees. The tuition fee for each year is eighty-five dollars. The payment of this fee entitles the purchaser to one continuous course of lectures and laboratory instruction in ali departments. The tuition fee covers all drugs, chemicals and other materials (with the exception of a few expensive drugs and chemicals) consumed by the student in the laboratories.

Special \*students may, by permission of the faculty, take any part of the course at a proportionate tuition fee, providing that such fee shall not be less than twenty-five dollars.

Laboratory Deposit. Chemical and pharmaceutical apparatus and supplies, together with microscopes and other implements required in the work of the course are furnished by the College without expense to the student, but breakage or damage to apparatus must be paid for, and for this reason each junior or senior student is required to deposit fifteen dollars with the Secretary. This deposit, or such portion of it as is not required for the specified purpose, will be refunded at the close of the term.

A diploma fee of ten dollars will be required.

Payment of Fees. All fees must be paid at the beginning of the term. Where this is impossible, the Laboratory Deposit and at least one-half of the tuition must be paid upon entering the class. The balance of tuition to be secured by note to be paid sixty days from date of matriculation.

All fees must be paid before the final examinations are taken.

Special Students. Students may matriculate for any separate course. Medical students will find a systematic instruction of pharmacy an excellent foundation for a medical course. The instruction offered in this school of pharmacy will give a working knowledge of chemistry as is applied in the engineering and metallurgical industries.

#### CORRESPONDENCE.

Letters of inquiry will receive careful and prompt attention. Address all communications to College of Pharmacy, 35th Street and Wesley Ave., Los Angeles, California.

## DEPARTMENTS OF INSTRUCTION

#### PHARMACY.

Professors W. T. Taylor and Arthur R. Maas.

JUNIOR YEAR-Eight hours per week.

The lectures of the Junior year will treat of the history of the Pharmacopoeia. Weights and measures, percentage solution and the arithmetic of dispensing and manufacturing pharmacy, owing to their importance, will be considered at length. Specific gravity and specific volume will be taught by demonstrations, using the various apparatus for the purpose, accompanied by a thorough explanation of each. Heat will next be considered, then the operations wherein heat is used; evaporation, distillation, sublimation, dessication, exsiccation, etc. This will be followed by a discussion of the preservation of crude drugs and their preparation for manufacturing purposes; then the operations of decantation, filtration, clarification, maceration, infusion, decoction and percolation.

Alternating with the subject of operative pharmacy, the galen ical preparations will be critically studied; while they will be discussed from the standpoint of their several classifications, such individual preparations as merit it will be given special

consideration, the object being to familiarize the student with the reasons for each step taken in the manufacture of the different preparations.

SENIOR YEAR-Eight hours per week.

The lectures of the Senior year will embrace the study of the inorganic and organic acids and the salts of the different metallic bases; the commercial methods of preparation will be touched upon, and a special effort will be made to teach the student how to prepare them extemporaneously when necessity arises therefor. In addition to the official compounds, those unofficial ones which through frequency of use merit it, will likewise be treated of

#### PHARMACEUTICAL LABORATORY.

This will be followed by a study of alkaloids and the neutral principles of vegetable drugs.

Extemporaneous pharmacy will then be taken up and will include a thorough discussion of dispensing. Facsimiles of physicians' prescriptions will, by means of the stereopticon, be thrown upon a screen, and the class drilled in reading those that are difficult to read. Chemical and pharmaceutical incompatibilities will be taught, and best methods discussed for overcoming same.

Manufacturing Pharmacy. Visits are made to several large manufacturing establishments where the preparation of pills, tablets, fluid extracts, etc., are studied at length from a manufacturing standpoint.

## MATERIA MEDICA-PHARMACOGNOSY.

## Professor C. W. Hill.

This course consists of one lecture or recitation and one laboratory exercise of two hours per week, and will present the subject in as broad, yet concise form, as possible. It will be confined to that instruction which will be of greatest benefit to the student when the course is completed, giving larger consideration to those drugs of animal or vegetable origin which in commerce are most frequently met with. The subject will treat first of those drugs of animal derivation, and will thence proceed to give consideration to those drugs of Phaneroganic and Cryptogamic origin. The lessons and lectures in Materia Medica will be based upon the pharmacopoeia; at the same time due observation will be given to those remedies which are unofficial. The order in which these agents will be taken up will be based upon a commercial classification, studying first the roots, which will be sub-classified according to analogous properties; thence continuing with Rhizomes, Barks, Flowers, Fruits, Seeds, etc. A prominent feature of the course will be found in the concurrent lecture system of instruction.

Instruction will be given two hours per week in Pharmacognosy, by lectures, as well as by recitations, quizzes, home study and examination of drugs—all these will be given with the view of enabling the student the more readily and thoroughly to identify the drug and give judgment as to quality.

The subject will be presented as follows: 1st—Drugs of animal origin. 2nd—Vegetable drugs.

Treating first the Cryptogams and next the Phanerogams.

Each drug will be considered as to its nature, origin, commercial and botanical relation, and microscopical structure, active principles, therapeutic action, doses, etc.

Adulterations, admixtures and substitutions will be thoroughly discussed.

## CHEMISTRY.

## Professor Laird J. Stabler.

JUNIOR YEAR-General Chemistry.

Two lectures or recitations and six hours in the laboratory each week for the year.

A course of lectures and demonstrations designed to be an introductory course in general chemistry, including a consideration of the principles governing chemical action and a description of the properties of the various elements and their compounds, as well as a drill in the meaning and use of symbols in chemistry, formulae and equations. Special emphasis is placed on chemical facts involved in the daily work of a pharmacist.

Junior Laboratory Course. The student is provided with a complete equipment of apparatus for qualitative analysis. During this course, a detailed study of the chemical and physical properties of the non-metals and their more important compounds is made and practical instructions in qualitative and volumetric analysis is given. Particular attention will be given to the separation and identification of the compounds of the United States Pharmacopoeia, together with tests of purity.

General Inorganic Chemistry. During the first part of the year the student prepares the more important elements and their compounds, making a careful study of their chemical and physical properties.

Qualitative Analysis. This course follows the course in General Inorganic Chemistry. It is a study of the methods of separation and identification of the principal bases and acids. In this work the identity and purity tests of the Pharmocopoeia are studied. The student analyzes a number of compounds unknown to the student, for bases and acids and makes tests for impurities in pharmaceutical and commercial chemicals.

SENIOR YEAR. ,

Organic Chemistry—Toxicology—Urinė Analysis. Two lectures or recitations and six hours each week throughout the year.

Organic Chemistry. The course will cover the whole field of this branch which is so important to the pharmacist. Special attention will be paid to those compounds which are of pharmaceutical value, including synthetical and medicinal preparations. The following subjects are studied with care: Hydrocarbons, alcohols, ethers, compound ethers, aldehydes, glycerin, fats, soaps, oils, carbohydrates, organic acids, amines and amides, aromatic bodies, resins, albuminoids, cyanogen compounds, alkaloids. etc. Some of the important chemical operations occurring in nature will receive attention such as combustion, decay, fermentation and putrefaction.

Laboratory Work in Organic Chemistry. The laboratory work will consist of the preparation of typical organic preperations

illustrating the general reactions involved in organic chemistry. Among the preparations made are ether, chloroform, iodoform, acetic ether, nitrous ether, acetanilide, methyl salicylate, etc.

Quantitative Analysis. An introduction to the underlying principles of gravimetric and volumetric analysis. Attention is paid to the standard "Volumetric Solutions" of the Pharmacopoeia.

Toxicology—Laboratory Course. The course will include lectures and practical laboratory work in the identification of the common poisons and also the methods of separating them from various complex mixtures.

Urine Analysis. The course will consist of lectures on the normal and pathological constituents of urine. In the laboratory the qualitative and quantitative estimation of sugar, albumin, urea, etc., will be studied, as well as microscopic examination of the sediment.

Food and Drug Analysis. The latter part of the Senior Year will be given over to Food and Drug analysis. The course will consist of lectures and laboratory work. Each student will be required to make a number of assays of U. S. P. preparations and also to examine food products for preservatives and adulterants. The official methods of analysis of the Department of Agriculture will be used.

## BOTANY AND MICROSCOPY.

Professor Ulrey. Assistant Professor Life.

Botany. The courses in Botany are planned with reference to the needs of the pharmacist. Since most drugs are parts of plants or plant-products a thorough knowledge of plant life is necessary to those whose business requires the dispensing of drugs.

Junior Court. The full year is devoted to the study of seed-bearing plants: (1) The parts of the flower, leaf, root and stem

are studied with reference to classifying plants and learning the names of representatives of each of the more important families. (2) The microscopic structure of the parts of the plant is then studied to become familiar with the kinds of cells found in the stem, root and leaves preparatory to the study of pharmacognosy. (3) A study is made of the manner in which drug products are produced by the life processes and habits of plants. The production of resins, oils and other vegetable substances is considered.

Senior Course. During the senior year the non-flowering plants are studied; (a) Algae and Fungi (Thallophytes); (b) Mosses and Liverworts (Bryophytes); (c) Ferns and their allies (Pteridophytes). Most of this course consists of a microscopic study of typical plants representing the groups with a series of lectures dealing with the meaning of facts observed in laboratory study. Special attention is given to those plants like the fern, club mosses, the so-called Irish Moss," ergot, etc., which are of importance to the pharmacist.

In each of the courses the student is furnished a compound microscope, hand lens and dissecting instruments.

The lecture room is supplied with a complete electrical projection apparatus by which microscopic objects can be thrown on the screen before the class.

Microscopy. Throughout the course of Botany the student has learned the use of the microscope, its parts, the methods of preparing slides for temporary use, etc.

In this course the student examines and uses the different kinds of microscopes and accessories. He learns how to measure microscopic objects (micrometry) and to prepare permanent slides of tissues and other objects. The laboratories are fitted up with a complete set of apparatus for photographing microscopic objects; tenstyles of compound microscopes of foreign and American makes; four styles of microtomes; camera lucida; condensers; micrometers and several hundred prepared slides for use in class work and demonstration.

## PHYSIOLOGY, HYGIENE AND SANITARY SCIENCE.

The action of drugs on the body is a subject requiring more attention from the pharmacist than formerly. He is responsible both morally and legally for the results of his sale of drugs.

Therefore a knowledge of the human body and its functions becomes an absolute necessity to the present-day pharmacist.

#### PHYSIOLOGY.

I. Junior Course. The first semester is given to a study of the human body, its parts and the way it carries on the functions of digestion, circulation, etc.

All the systems of organs are considered and each of the fundamental processes is studied.

The semester's work prepares the student to understand to some extent what action drugs may have on the body.

#### HYGIENE AND SANITARY SCIENCE.

II. Senior Course. Second Semester.

#### HYGIENE.

The care of the body as to the use of foods, drink, fresh air, exercise, etc., comprises the first part of the course. A consideration of the methods by which one may enjoy health as a result of right living and the injury likely to result from wrong habits.

The place of drugs in every-day affairs as they are related to hygiene.

#### SANITARY SCIENCE.

The nature of bacteria, methods of growing them and their place in nature. A sufficient acquaintance with these microscopic plant forms is attained to enable the pharmacist to know which bacteria are beneficial and which disease producing; what conditions are harmful and what not so; how to prevent decay of foods, etc., methods of sterilization and disinfecting. The water and milk supply and other foods receive special study with reference to the bacteria they contain.

The course gives sufficient practice in handling bacteria to avoid needless fear of them and to guard against the danger of infection where disease producing forms are likely present.

# TOXICOLOGY. Professor Arthur R. Maas.

This course consists of lectures to the Senior Class in which the different kinds of poisons are studied, the classes of anti-dotes, the various body conditions which modify the effects of poisons, and the different channels by which poisons may enter the body. Later each poison is taken up in detail and studied as to its lethal dose, symptoms, antidote and treatment. Attention is given to Posology, doses of potent drugs beings given special emphasis.

# PHARMACAL JURISPRUDENCE. Mr. Howard A. Peairs.

The course consists of lectures to the Senior Class in which the rights and responsibilities of pharmacists and the laws affecting the same are taken up and fully discussed. The Constitution of the United States and State Constitutions are explained, then Federal and State law, international law, etc. The statutes regulating the practice of Pharmacy, with their constitutionality, are discussed. The legal limits of Pharmacy, right to practice, legal qualifications of pharmacist, etc., are taken up, together with the liability of pharmacist and manufacturing pharmacist.

# COMMERCIAL PHARMACY. Mr. L. Schiff.

This course consists of lectures on topics in connection with the conduct of the business of Pharmacy, such as Buying, Selling, Insurance, Advertising, Bookkeeping, Correspondence, and General Business Building.

# FIRST AID TO THE INJURED. C. L. Lowman, M.D.

This course is planned to meet the needs of the Pharmacist who is often called upon to render first aid in accidents and do general emergency work.

The subjects touched on will be Wounds and their treatment. Burns, Fractures and Dislocations, Poisoning, Resuscitation in unconscious conditions, Bandaging, etc.

#### **COLLEGE OF THEOLOGY**

#### **CALENDAR**

1910.

October 3.....Registration.

October 4....Lectures begin.

1911.

February 7, 8, 9......Mid-Year Examinations.

February 10......Registration for Second Semester.

February 13....Lectures begin.

June 1 to 7......Final Examinations.

Vacations and Special Days uniform with the College of Liberal Arts.

#### HISTORICAL

The Maclay College of Theology was founded about twenty years ago by State Senator Charles Maclay in a generous endowment of lands in the San Fernando Valley. Rev. R. W. C. Farnworth, presiding elder of the Los Angeles District, was its first dean, the faculty being completed by the appointment of Reverends Fletcher B. Cherington and James Blackledge. On the death of Dean Farnsworth, the Rev. R. S. Maclay, D.D., the veteran missionary from the Orient, was called to the headship of the college which bears his name. When advancing years and failing strength caused the resignation of Dr. Maclay, the Rev. George Cochran, D.D., was called to succeed him.

Through all this period the college had been doing excellent work, coming about the time of the succession of Dr. Cochran

from its first home in the San Fernando Valley to the immediate neighborhood of the College of Liberal Arts in Los Angeles.

In the hard times of 1893 the trustees thought it expedient to close the Maclay College until its resources should warrant the continuance of its work. At the session of the Southern California Annual Conference in 1907, on the urgent request of the conference, the decision was made to resume work in the ology, and its present dean, Rev. E. A. Healy, D.D., was appointed.

The intimate relation of Maclay College to the College of Liberal Arts is of great advantage to both, appearing in the convenience of location on the same campus, and the interchange of credits where subjects are common to the two colleges.

It is the aim of the College of Theology to do all that is possible to furnish the churches of our constituency with preachers who shall be at once scholarly and evangelical, and pastors who shall be apt and successful in their difficult work.

In pursuance of this aim the following courses are arranged with the specified conditions of admission:

- 1. The Degree Course. A three years' course for students who have obtained the A.B. degree. The completion of this course will entitle the graduate to the degree of Bachelor of Divinity.
- 2. The Diploma Course. This is also a three years' course, open to students who have the equivalent of junior standing in the College of Liberal Arts. The Maclay College Diploma will be granted to graduates in this course.
- 3. Applicants will be admitted as special students to classes that, in the judgment of the Faculty, they can enter with advantage, and certificates will be given for all subjects satisfactorily taken.

Admission. A license to preach will be sufficient credential. Those not so qualified may present a certificate from their pastor as to their fitness to study for the Christian ministry, or for other religious work.

# CLASSICAL COURSE.

Biblical Introduction. Greek (Elementary). Systematic Theology. Practical Theology. Church History. Hebrew.

Church History.

English Literature and Expression.

Practical Theology. Systematic Theology. Greek (N. T.)

English Literature and Expression. Hebrew.

COURSES. Diploma.

Certificate.

# JUNIOR CLASS.

GREEK-ENGLISH COURSE.

Greek (Elementary). Biblical Introduction. English Literature and Expression. Practical Theology. Church History.

ENGLISH COURSE. Biblical Introduction. Practical Theology. Church History.

English Literature and Expression. Systematic Theology.

MIDDLE CLASS.

English Literature and Expression. Systematic Theology. Church History. Practical Theology. Greek Testament. English Exegesis.

English Literature and Expression.

Systematic Theology.

Practical Theology. English Exegesis.

Church History.

SENIOR CLASS.

Systematic Theology.

Practical Theology.

Greek Testament.

Sociology.

Systematic Theology. Historical Theology. Pastoral Theology. Greek (N. T.)

Apologetics. Sociology. Hebrew.

English Exegesis. English Literature and Expression. systematic Theology. Practical Theology. English Literature and Expression.

Apologetics. Sociology.

#### FEES AND EXPENSES

Tuition in Maclay College is free.

A registration fee of \$12.00 a semester is charged.

Liberal arrangement is made with the College of Oratory for the courses in Elocution, including special training in Bible and hymn reading.

Lectures by men and women of eminence in special fields are frequently given in the Assembly Hall and are free to all our students.

Students enrolled in either the degree or diploma courses will be allowed three hours in each semester, free of charge, in the College of Liberal Arts.

Free residence in the Maclay College Building is provided for a limited number. Rooms will be assigned in the order of accepted applications.

Numerous charges in the vicinity of Los Angeles find pastors among our students, and our District Superintendents are glad to make such arrangement where it is mutually satisfactory.

An information and employment bureau is maintained by the University Y. M. C. A., which is very helpful to those who wish to support themselves while in attendance at college.

Any additional information promptly given on application to

E. A. HEALY, Dean, Maclay College, University, Los Angeles, Cal.

#### DEPARTMENTS OF INSTRUCTION

Apologetics. The whole subject of the defensive facts and proofs of Christianity is included in this general term. Primarily it is found in the courses in the English Bible, given by Professor Hill, including Hermeneutics and Christian Evidences. Historical and Systematic Theology contribute to the full equipment of the student in this wide field.

#### BIBLICAL INTRODUCTION.

CHRISTIAN EVIDENCES-FOUNDATIONS OF FAITH.

Professor Hill.

This course will take up those phases of thought and facts of life that confront the student of today. The idea of God and the divine immanence; man and the legitimacy of the religious principle in the human constitution; the Bible as a revelation of God's relation to, and purpose concerning man's life and des tiny; the facts of conversion and the history of Christianity as witnesses to the divine origin of the system; and a consideration of the assumptions of modern cults which oppose or offer themselves as substitutes for Christianity.

#### CHURCH HISTORY.

Professor Coultas.

In this subject the work begins with the Life and Times of Christ, and progresses through the Apostolic, Mediaeval and Middle Ages to Modern times.

The history of doctrine is traced from the beginning; special care is taken with the great movements of the Church, such as the Reformation, the Wesleyan Revival, and the Church in America, including the history of American Methodism. Bishop Hurst's volumes are made a basis, but wide reference is had to standard authors.

#### EARLY ENGLISH BIBLE.

Professor Dixon.

Lectures on Early English translations, with readings from the first and the earlier English Gospels are given by the head of the Department of English, and afford a rare opportunity in a realm of great interest.

#### ENGLISH LITERATURE AND EXPRESSION.

This very important part of a preparation for the ministry is given a prominent place. In addition to the full courses in the College of Liberal Arts, special opportunity for study and

training in interpretation and expression is afforded in the College of Oratory, which is conveniently located near Maclay College.

# NEW TESTAMENT GREEK. Professor Owen.

Those who have had no previous training in the Greek language will register for course 1 in the College of Liberal Arts.

- 2. The Gospel according to John will be studied as a basis for mastering the language of the New Testament. Harper and Weidner's Introductory Greek Method will be used throughout the year. Two hours, both semesters. 2:00 Tuesday and Thursday.
- 3. The Gospel according to Luke; selection from the Acts; Epistle of James, Intensive Grammar and Syntax drill; word derivation and synonyms. Two hours (hours to be arranged).

# HEBREW LANGUAGE AND HISTORY. Professor James Blackledge.

The main object of instruction in this department is the securing of a good reading knowledge of the Hebrew text; hence during the first two years of the course special attention is given to oral class-reading exercises—the fundamental principles and rules underlying the Hebrew language—the origin of grammatical forms, with some exegetical study during the second semester of the second year.

A greater part of the first two years is devoted to the study of the text of the Pentateuch. During this time the student is requested to look up the inscriptions of Israel's neighbors—the Assyrians and Babylonians—in the library, with the view of aiding in the study of the text.

The principal object of our method of instruction is, by constant review, and frequent composition exercises, to make an otherwise dry study, as interesting as possible. During the latter half of the course will be taken up the studies in Messianic prophecy, with more exegetical work; exegetical studies in the minor prophets, and a critical study of the Book of Job. During the last semester of the course there will be grammatical,

critical and exegetical studies of selections from the Book of Psalms. During the entire course occasional lectures will be given on the Old Testament and related subjects.

The effort is, not to read meanings into the passages considered, but to get the original author's exact viewpoint. This is often a most difficult task and calls for modern scientific methods of application in exegesis. To obtain the exact idea intended by the author, the interpretative principles, methods and rules must be learned and applied. Some knowledge of the Greek language will be helpful. Two hours throughout the year. Tuesday and Thursday (hours to be arranged.

Prerequisite, Bible 1, 2, 3, 4.

#### HOMILETICS.

#### Doctor Hughes.

Kern's "The Ministry to the Congregation" is made the basis for instruction in this chief work of the preacher in connection with the subject of Pastoral Theology.

Dr. Hughes gives one lecture a week on this important subject, and is attracting, in addition to the regular theological students, many ministers who have been long in the pastoral work. His style is strong and clear and holds one's interest to the last sentence. His range of subjects covers the whole field of the pastor's life and work. The place of Pastoral Theology; the history, theory, and practice of preaching; the call to the ministry; the preparation to be added to nature's qualifications for the work; the history, constitution and development of the church; what the church does for the pastor, and the pastor's obligation to the church; relation of children to the church. and of the pastor to the children; the minister and his brethren; the pastor and the Sunday school; the pastor and the literature of the church; his use of books and libraries; methods and means of worship; pastoral visitation; the institutional church; the minister and social problems—such themes and many others, treated in the trenchant style of Dr. Hughes, comprise a course of living interest and great value. Christian workers and others interested are admitted to these lectures

#### THE HISTORY OF CHRISTIAN MISSIONS.

Professor Coultas.

This course requires two semesters. The first begins with Paul, A. D. 46, and continues to Carey, A. D. 1792. It briefly considers the condition of the world when Paul and Barnabas leave Antioch in the year 46, and studies the missionary spirit that manifested itself to Carey's time under the following agencies: promiscuous, governmental, papal, monastic, mendicant orders, military power, Jesuits, colonization, and denominational. The second semester deals with modern missions, their past, present and promise.

Lectures on Comparative Religions are given to classes in this subject.

#### SOCIOLOGY.

#### Professor Hunt.

Principles of Sociology. Elements of social theory. The structure, development and activities of human society. A comprehensive study of the social process and social ends, with frequent application to concrete conditions. Three hours, first semester.

Social Theories. A comparative study of the writings of leading sociologists of the present day. Extensive library work and frequent student reports are among the requirements. Three hours, second semester.

With permission of the Dean and the Department of Sociology, students may substitute for Social Theories:

Charities and Corrections. Studies in social pathology, poverty and philanthropy, the dependent classes, public and private administration of charities. The class visits charitable and reformatory institutions in Los Angeles and vicinity to study conditions and methods of social betterment. Three hours.

#### SYSTEMATIC THEOLOGY.

Dean Healy.

In the Junior year the text-book is "The Christian Faith" (Curtis). In the middle year the "System of Christian Doctrine" (Sheldon). While these works form the basis of study for the students out of class, a wide reference to authors, old and new, is encouraged, and all is supplemented by lecture and question in the class-room hour.

In the Senior year research in the library, and current theological literature, with essays on assigned subjects, and a continued attendance in the lecture-room will complete the work in this important field.

### THE PREPARATORY SCHOOL

#### · CALENDAR, 1910-1911.

#### 1910.

September	12-15	Entrance tration					_
September	16	.Recitation	s be	gin.			
November	24, 25	Thanksgiv	ing	Vacati	on.		
December	19	Christmas	Vac	ation	begi	ns.	

#### 1911.

January 1Christmas Vacation ends,
January 26Day of Prayer for Colleges.
January 30-February 3Mid-Year Examinations.
February 10Instruction for Second Semester begins.
February 22Washington's Birthday.
March 27-April 2Spring Vacation.
June 7-13Final Examinations.
June- 14Graduation Exercises.

#### THE PREPARATORY SCHOOL.

The Preparatory School is maintained in connection with the College of Liberal Arts. All of the instruction in the Preparatory School is under the supervision of the college faculty, thus insuring the best preparation for entrance to college. The students enjoy all the general advantages open to students in the College, including library, lectures, laboratories, religious and social privileges.

While the work of this school is mainly that of preparing students directly for the College, yet without lessening the work in this direction, the authorities realize the importance of giving increased attention to the large number of young people who desire academic instruction, but do not wish to devote the necessary time and means to secure a collegiate education. For this large and worthy class, the school purposes to provide sufficient facilities, so that in the limited time at their command they may acquire some preparation for their future work.

#### Requirements for Admission.

Applicants must have finished work equivalent to that required for admission to the high schools. They must show evidence of fitness to begin the work of the classes in the school. Persons who wish to take a partial course, or to select their studies, can enter the preparatory school without a formal examination, and pursue such subjects as they may be prepared to take.

#### Registration.

The method and regulations in registration are the same as those in the College of Liberal Arts.

#### Absence from Exercises.

The rules and regulations concerning absences from required exercises are the same as in the College of Liberal Arts.

#### ASSEMBLY.

The Assembly period is 11:45 to 12:10 Monday, Tuesday, Thursday and Friday of each week. Attendance is required. Wednesday of each week, at the chapel period, the Young Men's

and the Young Women's Christian Associations hold their respective devotional services, to which the students are cordially invited.

#### Reports.

Reports of standing are sent to the parent or guardian of all students each month. The Faculty desire the co-operation of parents in their efforts to maintain a high grade of scholarship and deportment.

#### Graduation and Diplomas.

The Preparatory School has a special evening set aside in commencement week for its graduation exercises.

Each student who completes one of the regular courses of study will be granted a diploma.

#### Literary Societies.

The Webster Literary Society is composed of young men who meet each week for training in public speaking.

The Willard and Annesley Literary Societies are composed of young women who meet each week for training in literary work.

#### The Declamation Prize.

A prize of ten dollars, offered to the student who wins in contest in declamation, was awarded in 1909 to Katherine Chang.

#### Rooms and Board.

Students are required to submit to the Faculty a statement of the places where they desire to room and board, and must secure their consent in each case.

Board and furnished rooms can be secured in private families at from three dollars to five dollars per week. Furnished rooms accommodating two students cost from four to eight dollars per month.

Other expenses incident to school life vary with the habits and circumstances of the student. They are not, of necessity, so great as to be burdensome to persons in moderate circumstances. The instances have been extremely rare in which students of good ability and health have been compelled to leave the school for want of money.

#### GENERAL INFORMATION.

For general information concerning location of school, religious privileges, library and reading room, the museum and the science laboratories, athletics and the gymnasium, see under College of Liberal Arts.

#### FEES AND EXPENSES

Tuition, per semester, in advance	\$ 40.00
Tuition per year (two semesters) if paid in advance	
Tuition, for six to ten hours, per semester	80.00
Tuition, for five hours, or less, per semester	30.0
(Hours as used above means so many hours per week.)	20.0
Athletic fee, required of all students	2.00
Gymnasium and Physical Education taken without other	
studies, per semester	8.00
Registration fee included in above, but not subject to rebate	
Diploma fee	5.00
Laboratory fees—	
Chemistry	8.00
Physics	4.00
Botany	
Zoology	
An additional deposit of five dollars to gover breakage	10 *0-

An additional deposit of five dollars to cover breakage is required in Chemistry. This deposit, less cost of breakage is refunded at the end of the year.

The children of ministers in the regular work of any evangelical denomination may have their tuition reduced to one-half the regular rate.

A discount of ten per cent of the tuition will be allowed when two or more students enter from the same family.

No rebate will be allowed for less than one-half a semester's enforced absence.

For further information address

PRESIDENT GEORGE F. BÓVARD, Los Angeles, California.

# COURSES OF STUDY

The regular courses of study are four in number, any one of which is designed to prepare students to enter the College of Liberal Arts, or institutions of similar standing. A student who has completed one of these courses is admitted to the College without examination.

		A CONTRACTOR AND ADDRESS OF THE PERSON NAMED AND ADDRESS OF TH	The second secon	
	A	В	O	Q
1st	5 ENGLISH, 2:00 5 LATIN, 8:55 or 1:05	5 ENGLISH, 2:00 5 LATIN, 8:55 or 1:05	5 ENGLISH, 2:00 5 LATIN, 8:55 or 1:05, or	5 ENGLISH, 2:00
YEAR	5 ALGEBRA, 10:50 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1:05	5 ALGEBRA, 10:50 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1:05	5 ALGEBRA, 10:50 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1:05	5 GEKMAM, 9:35 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1:05
2nd	5 ENGLISH, 1:05 5 LATIN, 8:55 5 ANC. HIST., 2:00	5 ENGLISH, 1:05 5 LATIN, 8:55 5 ANC. HIST., 2:00	5 ENGLISH, 1:05 5 LATIN, 8:55, or ©GERMAN, 10:50	5 ©CERMAN, 10:50 5 ©CERMAN, 10:50 5 ALGEBRA, 9:55
YEAR	4 BOTANY, Recit. 10:50 M.W., Lab. 9:55, M.W. 9:55-10:50 T.Th. 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1.05	4 BOTANY, Recit. 10:50, M.W., Lab. 9:55 M.W. 9:55-10:50 T.Th. 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1:05	4 ZOOLOGY, Recit. 2:00 M.W., Lab. 2:55 W.W., 2:00-2:55 T.Th. 2 GYM., 9:95, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1:05	5 DRAWING, 8:55-12:10 M. W. 1:05-3:50 M. T. W. 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1:05
3rd	5 GREEK, 10:50 5 LATIN, 2.00	5 ENGLISH, 8:00 5 LATIN, 2:00	5 Elective (3) 5 CHEM., Recit. 10:50 T.Th.F.,	5 Elective (3) 5 CHEM., Recit. 10:50 T.Th.F.,
YEAR	5 PL. GEOM., 8:55 5 AMER. HIST., 9:55	5 PL. GEOM., 8.55 5 AMER. HIST., 9:55	5 PL. GEOM., 8:55 5 AMER. HIST., 9:55	5 PL. GEOM., 8:55 5 AMER. HIST. 9:56
4th	5 GREEK, 9:55 5 LATIN, 8:00 5 PHYSICS, Regit, 8:55 M.T.W.,	5 Elective (4) 5 LATIN, 8.00 5 PHYSICS, Recit. 8:55 M.T.W.,		5 ©MATHEMATICS A, 8:00 T. W. Th. 5 DRAWING, 8:55-12:10 M.W.,
YEAR	Lab. 1:03-3:50 Ih.F., or CHEM., Recit. 10:50 T.Th.F., Lab. 1:05-2:55, W.Th.	Lab. 1.05-3:50 Ih.F. or CHEM., Recit. 10:50 T.Th.F., Lab. 1:05-2:55, W.Th.	5 PHYSICS, Recit. 8:55 M.T.W., Lab. 1:05-3:50 Th. F.	5 PHYSICS, Recit. 8:55 M.T.W., Lab. 1:05-3:50 Th. F.
	5 Elective (4)	5 Elective @	5 Elective 4	5 Elective (4)

NOTE — The figures denote the number of class recitations (or their equivalent in laboratory work and drawing) per week.

① Mathematics A, includes Trigonometry, Solid Geometry and a review of Algebra.

② Students who have received credit for two years of German, and who intend to take up German 2 in their freshman year in College, must review the second

semester of German 1 (College) in their last semester in the Preparatory School.

® Electives in the Third year are English, Latin, German.

© Electives in the Fourth year are Greek, Latin, German, French, Spanish, English, Zoology, Botany, Mathematics A, Physics, Chemistry, Algebra, Anc. Hist.

#### DEPARTMENTS OF INSTRUCTION

#### ENGLISH.

#### FIRST YEAR.

#### First Semester.

- 1. Reviews of Technical Grammar, with practice in Writing Compositions. Three hours a week.
  - 2. Classics. Two hours a week.

#### Second Semester.

- 1. Rhetoric and Themes. Two hours a week.
- 2. Classics. Three hours a week.
  - A. Irving: Selections from Sketch Book.
  - B. Hawthorne: Tales of the White Hills.
  - C .- Lowell: Vision of Sir Launfal.

#### SECOND YEAR.

#### First Semester.

- 1. Rhetoric: Gardiner, Kittredge and Arnold. One hour a week.
- <sup>-</sup> 2. Themes: Special attention to rhetorical structure. One hour a week.
  - 3. Classics. Three hours a week.
    - A. Scott: Lay of the Last Minstrel.
    - B. De Coverley Papers.
    - C. Coleridge: Ancient Mariner.

#### Second Semester.

- 1. Rhetoric: Gardiner, Kittredge and Arnold. One hour a week.
  - 2. Themes. One hour a week.
  - 3. Classics. Three hours a week.
    - A. George Eliot: Silas Marner.
    - B. Scott: Ivanhoe.
    - C. Shakespeare: Merchant of Venice.

# THIRD YEAR. First Semester.

- 1. Rhetoric: Blaisdell. One hour a week.
- 2. Themes: Exposition and Description. One hour a week.
- 3. Classics. Three hours a week.
  - A. Carlyle: Essay on Burns.
  - B. Burns: Selected Poems.
  - C. Tennyson: Idylls of the King.
  - D. Shakespeare: Midsummer Night's Dream.

#### Second Semester.

- 1. Rhetoric: Blaisdell. One hour a week.
- 2. Themes: Narration and Description. One hour a week.
- 3. Classics.
  - A. Macauley: Essay on Warren Hastings.
  - B. Lincoln's Inaugurals and Webster's Gettysburg
    Speech.
  - C. Milton's Minor Poems.
  - D. Shakespeare: Julius Caesar.

# FOURTH YEAR. First Semester.

- 1. Painter's Elementary Guide to Criticism. One hour a week.
- 2. Themes: Exposition and Argument. One hour a week.
- 3. Gayley and Young's Principles and Progress of English Poetry. Three hours a week.
  - A. Outline-History of English Literature.
  - B. Chaucer, Gray, Wordsworth, Shelley, Keats, Byron, and Browning.

#### Second Semester.

- 1. Themes: Exposition and Argument. One hour a week.
- 2. Classics. Four hours a week.
  - A. Burke: Speech on Conciliation,
  - B. Webster-Hayne Debate.
  - C. Poe: Poems and Tales.
  - D. Shakespeare: Macbeth.

#### ENGLISH BIBLE.

Two courses of one hour each are offered for students in the Preparatory School—Old Testament, 10:50 Tuesday, first semester; New Testament, 10:50 Tuesday, second semester.

#### GERMAN.

#### First Year.

Collar's Beginning German. This text book provides the material for the first year's course. It comprises studies in pronunciation, grammar, drill on the forms, elementary conversation, and various anecdotes and poems for translation and memorizing. Further interesting reading and material for conversation and composition is taken from Guerber's Maerchen und Erzaehlungen.

#### Second Year.

The grammar is finished and reviewed. Various modern German stories, poems, and plays are read and reproduced, both orally and in the form of written exercises.

The class work is conducted mainly in German, and the ability to read accurately and fluently and express simple thoughts in spoken and written German is required.

#### GREEK.

#### First Year.

White's First Lessons is used throughout the year. The aim of the first year's work is thoroughly to acquaint the pupil with forms.

#### Second Year.

During this year the first four books of Xenophon's Anabasis are translated. Daily practice is given in sight reading. Pearson's Greek Prose Composition is used throughout the year. The work is made the basis of a thorough drill in grammar. Goodwin's Greek Grammar is used for reference.

#### Third Year.

Books I-IV of Homer's Iliad are read and translated. Practice in sight reading is given daily from Books V and VI. Scansion, forms, syntax and mythology are given special attention. Pearson's Greek Prose Composition is used throughout the year.

Note. Beginning classes in Greek are carried on in the College Department in which the work outlined above is covered in two years. Preparatory students who show special ability and strength in this subject are admitted to these College classes and are advised to avail themselves of this privilege. The same credit (three units) is given to Preparatory students in these classes as is granted in the Preparatory Department for the three years work.

#### HISTORY.

The work in History is carried on by means of text-books, lectures, essays, and library work. Constant reference is made to the atlas and dictionary, maps are drawn, essays required, and the topical method is used for special subjects. Full and carefully kept note-books are required in all the subjects in this department.

- 1. Ancient History. Greek and Roman History. One year.
- 2. American History and Civics. One year.

## LATIN. First Year.

The aim of the first year's work is to attain an accurate pronunciation, a thorough knowledge of all the regular forms of declension and conjugation, together with the simpler principles of syntax, and a vocabulary of about eight hundred common words.

#### Second Year.

Four books of Caesar's Gallic War are read. Regular forms are reviewed and essential irregular forms are learned in a systematic study of Latin grammar. There is regular practice in oral or written translation into Latin of exercises based on the text read, and slight translation is an important part of the year's work. Some attention is given to subject matter.

#### Third Year.

In the reading and interpretation of six of Cicero's orations the time is equally divided between language and subject matter. The grammar is thoroughly reviewed in regular oral or written composition based on the text. An attempt is made to gain a definite knowledge of Cicero and his age, of the Roman government in Cicero's time, and of the city of Rome. The simpler letters are read at sight.

#### Fourth Year.

The first six books of Vergil's Aeneid are read and interpreted. A special effort is made to approach the work as poetry. Prosody, figures of speech, mythological references, and poetical constructions are studied. Metrical reading is insisted upon. An idea of the Aeneid as a whole is gained by the sight reading of portions of the last six books. Two days each week are occupied during the first semester in a review of syntax and in prose composition.

#### MATHEMATICS.

The aim of the course in Mathematics is to cultivate the habits of independent reasoning, of accuracy of work, of precision and clearness in the statement of conclusions and the reason upon which they depend. First in importance is the intellectual training that makes the mind a ready and keen tool; second, the orderly acquisition of facts. Absolute thoroughness and work that increases in amount and difficulty with the student's increasing capacity, are required. The student's efficiency is measured by his power to do. Throughout the course written reviews and test examinations are frequent.

#### Algebra, First Year.

Wentworth's New School Algebra, through Quadratics. Special emphasis is placed on factoring and on the solution of equations. The object of the study is not only to acquire a knowledge of the subjects required for admission to the leading universities, but to secure the mental discipline for its own sake, and such a drill as looks to the use of the algebraic method in future study.

#### Algebra, Second Year.

Beman and Smith's Elements of Algebra. A review of the first year's work is taken, and the text book is completed. This work is supplemented by lectures on the theory of algebra, and these form a most important part of the course.

#### Algebra, Third Year.

Fisher and Schwalt's Higher Algebra, two hours a week. This course is given as an elective for students of marked mathematical ability, and is open only to those who have taken second year algebra.

#### Geometry,

1. Plane Geometry. One year. Careful attention is given to constructions, clear and logical expression, and above all to the attainment of the power to do original work in geometry. The exercises of the text-book are supplemented by constant suggestions by the teacher for investigations.

2. Solid Geometry, four hours a week, during the first sem-

ester.

#### Trigonometry.

Plane Trigonometry, and a brief study of Logarithms and the solution of the Right Spherical Triangle, four hours a week, during the second semester.

#### DRAWING.

#### First Year.

#### Ten hours a week.

Freehand Drawing: First Semester—Elementary line work from geometric solids and simple natural objects.

Second Semester, advanced line work in pencil from casts and still life, flat wash in black and color.

#### Second Year.

#### Ten hours a week.

Instrumental Drawing: First Semester—Linear drawing, simple geometric problems, lettering.

Second Semester, advanced geometric drawing, conic sections, projections.

#### PHYSICAL TRAINING.

Systematic class work. This consists of vigorous drill with dumb bells, clubs, bar bells, etc., for the men; for the women, general development exercises in walking and running, simple. free movements, recreative games and outdoor sports. Required of all first year students. Four hours a week.

Progressive graded work on various pieces of gymnastic apparatus, mat work and gymnastic games for the men; more difficult free movements, relaxing exercises, mat work, walking, drill, and dumb bells and games in the open air for the women. Required of all second year students. Four hours a week.

#### SCIENCE.

#### Biology.

Botany and Zoology, each given as a full course of eight hours per week, for one year. The work in each is a combination of laboratory study, lectures and recitations, with a careful notebook record of the work actually done by the student under the direction of the teacher. The ground covered and the methods employed are such as fully meet the requirements of any college to which the student might desire to go.

#### Chemistry.

The subject of Chemistry continues throughout the year, and includes all the general principles theoretical and practical of inorganic chemistry, such as given in McPherson and Henderson,

Elementary Study of Chemistry. Recitations and individual laboratory work occupy not fewer than seven hours per week. A special effort is made throughout to develop the scientific habit of thought and to lead the student to observe the chemical changes constantly taking place. In the laboratory each student is furnished with a desk and all necessary reagents and apparatus, and is required to keep a complete record of the work done during the year.

A laboratory fee of eight dollars per semester, and an additional deposit of five dollars is required. The loss by damage or destruction of apparatus will be deducted from the deposit of five dollars, and the balance refunded at the close of the semester.

#### Physics.

This course is designed to give the student a familiarity with the principal facts, laws and theories of Physics. This is accomplished by the careful study of a text and definite laboratory work for one year.

#### CATALOGUE OF STUDENTS

#### COLLEGE of LIBERAL ARTS

The names of students are followed by the designation of their several classes (G., Graduate Student; Sr., Senior; J., Junior; S., Sophomore; F., Freshman; Sp., Special Student); the name of each student is followed also by an abbreviation indicating the degree for which he is a candidate, (A.B., Bachelor of Arts; B.S., Bachelor of Science; A.M., Master of Arts).

Allan, Roy Folger	S.,	A.B	Los Angeles
Allen, Anais Julia	J.,	A.B	South Pasadena
Allen, Charles Lewis, Jr	S.,	A.B	South Pasadena
Allin, Ray Lester			
Adamson, Jessie Alvira	F.,	A.B	Los Angeles
Adkinson, Katherine Wiley			
Amis, Anna Joyce			
Axtman, Leon Gaspard			
Babcock, Maude Amelia			
Bach, Welcome Lawrence			
Backstrand, Lillian Jeanette			
Baker, Donald McCord			
Ball, Bessie			
Barnett, Rex William			
Barnhart, Percy Spencer	S.,	A.B	Los Angeles
Baxter, Gladys	S.,	A.B	Compton
Beach, Everett Charles	Sp.,	A.B	Los Angeles
M.D., Baltimore	Medi	ical Co	llege.
Beal, William Wilson	J.,	B.S	Los Angeles
Beall, Harry Hammond	J.,	A.B	Los Angeles
Beck, Helen May	F.,	A.B	Los Angeles
Behymer, Elsie Olive	F.,	A.B	Los Angeles
Bell, Raymond Fred	F.,	A.B	Los Angeles
Benson, Martha Faye	S.,	A.B	Los Angeles
Berryman, Olive Perkins	S.,	A.B	Los Angeles

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Bettinger, John Marcus	F., A.B	Los Angeles
Biddle, Ethel Riggs	S., A.B	Long Beach
Bien, Beulah V		
Bigelow, Emma L		
Bishop, Harold A	S., A.B	Toledo, Ohio
Blackburn, Porter C	Sr., A.B	Los Angeles
Blair, Ben B	F., B.S	Los Angeles
Blair, Maurice Guernsey	F., B.S	Los Angeles
Bley, Florence Marion	F., A.B	Los Angeles
Blumenberg, Clara	F., A.B	Los Angeles
Blumenberg, ClaraBoardman, L. M	S., B.S	Santa Monica
Bobey, Harry Gausden	Sp., B.S	Los Angeles
Boller, Gordon		
Boller, Stanley	S., A.B	Los Angeles
Bonynge, Charles William		
Bosche, Dorothy M		
Bostwick, Norris		
Bouelle, Frank August		
Bovard, Edna Georgina	S., A.B	Los Angeles
Bowers, Chester Herbert	G., A.M	Los Angeles
A.B., University of		
Bowers, Evelyn Cummings		
Bowser, Charles Arthur		
Bradway, Mark Wilson		
Bridges, Ruth Gladys		
Bridges, Sadie Ethel		
Brim, Minnie		
Brison, Janet Isabelle		
Brode, Alverda June		
Brown, Edgar Kapp		
Brown, Frederic Raymond		
Brown, James Lorin	J., A.B	Los Angeles
Brown, Maggie Jane Eiffel		
Bryan, Luella H		
Buchanan, Genevieve	I., A.B	Los Angeles
Bunker, Frank	F., A.B	San Tacinto
Burk, Earl Elihu		
Burleson, Frank Edward		
Burmaster, Huston William		

Cooper, Renel Fenimore	F. A.B.	Corona
Corbin, John Walker	S. A.B.	Los Angeles
Cortright, Lucretia M	F. A B	Galeton Pa
Coykendall, James Marion	F. A.B	Amora Neb
Crabb, Alice	T. A.B	Los Angeles
Craig, John Bryan	I. A.B	Unland
Crary, Gordon Byxbe	F. A.B	Los Angeles
Crinklaw, Charles B	F. A.B	Oxnard
Cronemiller, Flora May		
Crooker, Leon James		
Crossman, Ralph		
Crowell, Mrs. Minnie Margaret.		
Cummings, Gabriel Penn	F. B.S.	Fresno
Cynn, Hugh H		
Davidson, Joseph George	T., A.B	Long Beach
Dayman, Evelyn Laura	S A.B	Long Beach
Deats, Rowena Frances	F. A.B	Los Angeles
DeCamp, Lura Marie	F., A.B	East Hollywood
Decius, Louis Courtney	F. B.S	Los Angeles
Dexter, Earl Francis	F. A.B	Riverside
Dick, Sam Finley	T., A.B	Glendale
Dix, Josephine Marie	Sp., A.B	Los Angeles
Dixon, Grace May		
Dowds, Roy Wilson		
Draper, Ella Martin	J., A.B	Ontario
Dresslar Martha Estella	F., A.B	Los Angeles
Eastman, Eric E	F., A.B	Hollywood
Eaton, Arthur Lincoln		
Eccleston, Earle Stevens		
Ellington, Frederic Merton		
Elliott, Harry Charles		
Edwards, Lyman Elmer		
Ph.B., Drake		
English, Suart Gordon	F., B.S	Lindsay
Ensley, Oliver P	Sr., A.B	Ontario
Erickson, Mrs. Maud Weaver	J., A.B,	Los Angeles
Erwin, Douglas G	F., A.B	Sacramento
Evans, Edgar James	F., A.B	Braddock, Pa.
Fankhauser, Ernest John	F., B.S	Durango, Colo.

Farrington, Mabel Winifred		
Farrow, Leigh Evelyn	F., A.B	Long Beach
Fay, Hazel Margaret	S., A.B	Long Beach
Felker, Anna Mary	F., A.B	Pasadena
Fellows, Ethel Forbes	Sp., A.B	Los Angeles
Ferguson, Catherine Louise	S., A.B	Los Angeles
Ferguson, Maude M	J., A.B	Los Angeles
Fillmore, Hugh H	F., A.B	Los Angeles
Fletcher, Mavilla Ruth	Sp., A.B	Los Angeles
Fraser, Christine Rettie		
Fredenburg, Mary Pauline	Sp., A.B	Los Angeles
Freeman, Mary Emily		
Fulton, Eleanor Gordon		
Gail, Sherman		
Gates, Austin Bryant		
Gates, Frank Rush		
Gay, Leslie F., Jr		
A.B., University of S		
Gearhart, Iva Pearl		
Geller, Roscoe Glenn	SAB	Toledo, Ohio
German, Nita Bird	Sn.	Los Angeles
Gholz, Walter Irvin		
Gilbert, Howard Eugene		
Gilman, Ethel Susan		
Gilson, Lewis Edward		
Glass, Lois Belle	F AR	Ontario
Glenn, Claire Gustavia	r., A.D	Clandala
Good, Mary Elizabeth S	C A M	Dagadana
A.B., Betha	G., A.M	F dSdUciid
Goodall, Samuel Erle	ny Conege.	Chatamonth
Goodali, Samuel Erle	A.D	Chatsworth
Goodenow, Harold Wheelock	F., A.B	Los Angeles
Goodere, Harold Ingham		
Goodsell, Joy G		
Gould, Jesse A		
Gower, Harrison Preston		
Graettinger, Rupert Fred	F., A.B	Ontario
Grant, Agatha	F., A.B	Los Angeles
Grass, Joseph Fernand		
Green, Florence L	Sp.,	West Union, Ia.

Green, Gladys		
Grow, Jesse Avery		
Guild, Ellis Darwin		
Halfpenny, Ida Belle		
Hall, Boyden		
Hall, Walter Alexis	J., B.S	Huntington Beach
Hamilton, Eleanor Frances		
Hampton, Lorenzo A		
Hanawalt, Frank Barrett, Jr	F., · A.B	Los Angeles
Hanawalt, William Cyrus	G., A.M	Lordsburg
M.E., Junio	ata College.	•
Hansen, Julius	Sp., A.B	Los Angeles
Harriman, William Ruddy	Sr., A.B	Los Angeles
Harris, Ethel Cordelia	F., A.B	Compton
Haslett, Roy Lyon		
Hatcher, Joybell		
Hatfield, Clara Cecil	F., A.B	Los Angeles
Haynes, Grace Bertice	F., A.B	Aurora, Indiana
Healy, Lulu May	Sr., A.B	Los Angeles
Henderson, Randall Thomas	T., A.B	Akron, Colo.
Herold, Berta Dyer		
Hickson, Stephen Emmet		
Hidden, Carolyn Maybelle		
Higgins, Arthur Lloyd		
Higgins, David Jordan		
Hill, Arthur Louis		
Hill, Joseph Tyler		
A.B., Univ. of Virginia;		
Hipple, Warren Braun		
Hitt, Eleanor		
Hoashi, Riichiro		
Hogan, Nelson Stary	F., A.B.,	Los Angeles
Hogan, Romaine	F., A.B.	Los Angeles
Hogoboom, William Coryell		
Hogsette, Grace Wise	F. A.B	Los Angeles
Hollan, Margaret Frances		
Holland, Rufus Hurn		
Hollingsworth, Laura Anne		
Hough, Henrietta How		
Trough, Tremretta Trow	ор., л.т.	asadciia

Catalogue	of Students	221
Hughes, W. F	Sp., A.B	Los Angeles
Houghton, William Lake	F., A.B	Rivera
Howard, Glenn D	F., A.B	Santa Monica
Hubbard, Donna Hawthorne		
Hughes, Blakeney	F., A.B	Pasadena
Hummel, Edward John	F., A.B	Los Angeles
Humphrey, Helen Rosebrook		
Hunter, Fanny		
Hunter, Henry Allan	Sp., A.B	Los Angeles
Hurst, Florence Louise		
Huston, Luther Allison	S., A.B	Tacoma, Wash.
Hyer, Louise DeS		
Ickes, Howard Raphe		
Ickes, Sydney Frank		
Iliff, Ruth Margaret		
Inwood, Grace Agnes		
Jackson, Herbert Ladd	F., B.S	Hollywood
Jackson, Wayne Bassett		
Jacobs, Mary Blanche		
Janney, Thomas Addison		
Jeffers, John Robinson		
A.B., Occid	ental College.	
Jessup, Mary Catharine		
Jessup, Walter E		
Johnston, Inez	S., A.B	Los Angeles
Joslin, Phoebe	Sr., A.B	Los Angeles
Kanyu, Sakai		
Kaprielian, Michael Caspar	F., B.S	Fresno
Keeney, Florence Alice Loveless	sJ., A.B	.Jordan, New York
Kellar, Stewart	F., B.S	Los Angeles
Kendrick, Jessie Pauline	F., A.B	Los Angeles
Kiajicek, Henry Charles	F., A.B	Alliance, Nebr.
Kirckhoffer, Richard Ainslie	F., A.B	Los Angeles
Knopf, Carl Sumner	F., A.B	Los Angeles
Knott, James Proctor		
Kramar, David Glenn		
Kuhnle, Carl Herman	F., A.B	Anaheim
Kurrle, Alfred Emil		
Kuster, Mrs. Edward G	G., A.M	Los Angeles
A.B., University of		

Kuykendall, Alfred	J., A.B	Los Angeles
LaClair, Olive Rebekah		
Lamberson, Norman	F., A.B	Salem, Oregon
Laporte, William Ralph		
Larson, Walter Alexander		
Lawrence, Arthur Douglas		
Lawrence, Chester	Sp., A.B	Los Angeles
Lee, Guy Gerald	F., A.B	Los Angeles
Lennox, Howard M	S., A.B	Glendale
Lewis, De Witt	F., B.S	Los Angeles
Liang, Hing Luen	F., A.B	Los Angeles
Lillard, Jeremiah Beverly	G., A.M	Los Angeles
A.B., Stanfor	rd University.	
Lindsey, Jasper Leonard	F., A.B	Los Angeles
Livoni, John Peter		
Locke, Ruth Wood		
Loly, Kathleen Dorothy		
Longshore, Milton Mahlon		
MacDonald, Catherine Helen		
Mackenzie, Andrew N	F., B.S	Los Angeles
Mahoney, Clarence Henry	F., A.B	Los Angeles
Malcom, John Sheldon	S., A.B	Long Beach
Malan, William Edward		
Mallory, Gertrude		
Manatt, Hazel Morgan		
Manning, Edward Earle		
Marchant, Arte Stanage		
Martin, Leonard Camburn		
Masser, Harry Lascelles	F., B.S	Montebello
Masuda, Tetsu, Toru	F., A.B	Sanuki Japan
Mauzy, Wayne Churchill	F. B.S.	Los Angeles
Maxson, Herbert Gardner	F. A.B.	Los Angeles
McAleer, Charles Torrence		
McCan, David Chambers		
McCarthy, Elizabeth Carroll		
McClellan, Leslie Newman	I BS	Riverside
McComas, Ethel	Sn	Pomona
McCorkle, Annie Rowland	S A B	Los Angeles
McCoy, Ethel Lucinda	F A B	Los Angeles
niceoy, Einer Lucinda	, 42.23	Los Tingeres

McCray, A. Calvin		
McCune, Irene	F., A.B	Perry, Oklahoma
McEndree, Fay N	J., A.B	Los Angeles
McEwen, William Wilson		
McGorray, Jeannette		
McLaughlin, Robert D	F., A.B	Los Angeles
McNeil, Diana Bralah		
A.B., University of		
McQuigg, Harry Martin		
McSweeny, Margaret Mary		
McWhirter, Louis B		
Merriell, Edith Rebecca		
Metcalf, Edward Newcomb		
Meyer, Emma Sophia		
Michaelis, Esther		
Mitchell, Harry		
Moberly, W. Ray		
Monteleone, Joseph		
Moody, Clarence Lemuel	S., A.B	Los Angeles
Moody, Egbert Earl		
Moore, Camille Anna		
Moore, Clarke Alphonso		
Moore, Harry James		
Moses, Marian Tytherleigh		
Mowers, Beatrice Mary		
Murray, Guy Forrest		
Murray, Hamilton		
Murray, Virginia		
Myers, Edith Marie Marshall		
Nakamura, Masawo K		
Nagai, Tasaburo		
Nave, Junia		
Nelson, Mary Elizabeth		
Nemechek, Rudolph Joseph		
Newkirk, William Bentley		
Nichols, Loyd Patterson		
Nichols, Viola Beatrice		
Nigg, Rose Annetta		
Noble, Carrie M		

Oakley, Elizabeth M	Co A D	Too America
Olmsted, Harry F		
Oswald, Christian Lester		
Oxnam, Garfield Bromley		
Palmer, Bertha Louise		
Palmer, William Judson		
Parker, Pauline		
Parker, William R		
Parks, Elizabeth Florence		
Parmelee, Florence		
Parmenter, Charles Leroy		
Pasko, Ruth Matelma		
Patterson, Clova Floyd		
Paulin, Harold David		
Paxton, Percival Curtis		
Peterman, Russell Wallace		
Phillips, Clifford Henry		
Phillips, Harry Francis	S., A.B	San Pedro
Playter, Philip		
Powell, Mary Irene		
Prather, Wilbur William	S., B.S	Los Angeles
Pratt, Evelyn R. A	Fr., A.B	Santa Monica
Pressman, Lillian Elizabeth	Sp., A.B	Los Angeles
Preston, Alice Lucile	Fr., A.B	Pasadena
Prince, Claude Raymond	S., A.B	Los Angeles
Prior, Jack Wolsey	F., B.S	Los Angeles
Ransom, Walter	Sp., A.B	Redondo Beach
Reberger, William		
Reed, Chauncey Lester	F., B.S	Los Angeles
Reed, Burt W		
Reed, Leslie James	G., A.M	Hermon
A.B., University of		
Reiche, Charles F	F., A.B	Los Angeles
Reinhard, C. J	Sp., A.B	Los Angeles
Reinhard, James Clarence	Sp., A.B	Los Angeles
Reser, Raymond Lawrence	F., A.B	Alhambra
Reynolds, Myra Harriet	F. A.B	Highland Park
Reynolds, Roy G	F. A.B	Perris
Rhodes, Emily De Noyelles	Sp. A.B	Santa Monica
tillodes, Ellilly De Hoyelles	p., 12.2	

Rice, Loren Benton	FRS	Indecon Ohio
Rice, Nettie Belle		
Richardson, Grant		
Richardson, Frank Robert		
Riche, Mansel J		
Riley, Portia Alice	Sp. A.R	Monrovia
Rindge, Frederick Hastings		
Rivers, Lillian Frances		
Roberts, Charles Wesley		
Roberts, William Giles		
Robertson, Blanche Louise		
Robinson, Flora Humason		
Robinson, Francis Willard		
Robinson, Irene		
Robson, John Stanley		
Rogers, John, Jr		
Romig, Edith May		
Roome, Beatrice May		
Roome, Harry Verrinder	S BS	Los Angeles
Ruschkaupt, Theodore August.		
Rush, Bertha		
Ryan, Bernice Lorane		
Ryan, Sylvia Nigel		
Salzman, Maurice	Sp., A.B.,	Los Angeles
Saverien, Arnold Egerd		
Schaffer, Gertrude Berford		
Schmutzler, Fred L		
Schoeller, Jacob D		
Schwab, Erma B		
Schwab, Ida A		
A.B., Western R		
Scott, Alice Edith		
Scott, Benjamine David		
Scott, Charles H		
A.B., University of		
Scott, Homer Davis		
Scribner, Emma May		
Seal, Luetta Clarissa		
Shepard, Anne Loomis	S., A.B	Los Angeles

Shepard, Grace Ethel
Short, Frank H., Jr
Shumway, Howard Paine
Silvins, Delwin Harold
Sims, George Washington F., A.B. Los Angeles Sims, Violet Ellen F., A. B. Aurora, Nebr. Sinclair, Roscoe S., B.S. Edgewater, Colo. Skinner, Carl B. F., A.B. Los Angeles Skinner, John K. S., A.B. Los Angeles Sloan, Winifred N. F., A.B. San Bernardino Smith, Cordelia Madison F., A.B. Los Angeles Smith, Eva Mae F., A.B. Los Angeles Smith, Edwin Thomas F., A.B. Los Angeles Smith, Gladys F., A.B. Los Angeles Smith, Hilda F., A.B. Los Angeles Smith, Lillian F., A.B. Los Angeles Smith, Marion Lenore F., A.B. Los Angeles Smith, Ruth Cordry F., A.B. Los Angeles Smyder, Stella May J., A.B. South Pasadena Sowden, Grace Evelyn S., A.B. Los Angeles Sparey, Albra L. S., A.B. Los Angeles Speicher, Mary Maude J., A.B. Los Angeles Spinks, Leon F., A.B. Los Angeles
Sims, Violet Ellen F., A. B. Aurora, Nebr. Sinclair, Roscoe. S., B.S. Edgewater, Colo. Skinner, Carl B. F., A.B. Los Angeles Skinner, John K. S., A.B. Los Angeles Sloan, Winifred N. F., A.B. San Bernardino Smith, Cordelia Madison. F., A.B. Los Angeles Smith, Eva Mae. F., A.B. Los Angeles Smith, Edwin Thomas. F., A.B. Los Angeles Smith, Gladys. F., A.B. Los Angeles Smith, Hilda. F., A.B. Los Angeles Smith, Lillian. F., A.B. Los Angeles Smith, Marion Lenore. F., A.B. Los Angeles Smith, Ruth Cordry. F., A.B. Los Angeles Snyder, Stella May. J., A.B. South Pasadena Sowden, Grace Evelyn. S., A.B. Los Angeles Sparey, Albra L. S., A.B. Los Angeles Speicher, Mary Maude. J., A.B. Los Angeles Spinks, Leon. F., A.B. Los Angeles
Sinclair, Roscoe
Skinner, Carl B
Skinner, John K. S., A.B. Los Angeles Sloan, Winifred N. F., A.B. San Bernardino Smith, Cordelia Madison. F., A.B. Venice Smith, Eva Mae. F., A.B. Los Angeles Smith, Edwin Thomas. F., A.B. Los Angeles Smith, Gladys. F., A.B. Los Angeles Smith, Hilda F., A.B. Los Angeles Smith, Lillian F., A.B. Los Angeles Smith, Marion Lenore F., A.B. Los Angeles Smith, Ruth Cordry. F., A.B. Los Angeles Snyder, Stella May. J., A.B. South Pasadena Sowden, Grace Evelyn. S., A.B. Los Angeles Sparey, Albra L. S., A.B. Los Angeles Speicher, Mary Maude. J., A.B. Los Angeles Speicher, Mary Maude. J., A.B. Los Angeles Spinks, Leon. F., A.B. Los Angeles Spinks, Leon. F., A.B. Los Angeles
Sloan, Winifred N. F., A.B. San Bernardino Smith, Cordelia Madison. F., A.B. Venice Smith, Eva Mae. F., A.B. Los Angeles Smith, Edwin Thomas. F., A.B. Chula Vista Smith, Gladys. F., A.B. Los Angeles Smith, Hilda. F., A.B. Los Angeles Smith, Lillian. F., A.B. Los Angeles Smith, Marion Lenore. F., A.B. Los Angeles Smith, Ruth Cordry. F., A.B. Los Angeles Smyder, Stella May. J., A.B. South Pasadena Sowden, Grace Evelyn. S., A.B. Los Angeles Sparey, Albra L. S., A.B. Los Angeles Speicher, Mary Maude. J., A.B. Los Angeles Speicher, Mary Maude. J., A.B. Los Angeles Spinks, Leon. F., A.B. Los Angeles Spinks, Leon. F., A.B. Los Angeles
Smith, Cordelia Madison F., A.B. Venice Smith, Eva Mae F., A.B. Los Angeles Smith, Edwin Thomas F., A.B. Chula Vista Smith, Gladys F., A.B. Los Angeles Smith, Hilda F., A.B. Los Angeles Smith, Lillian F., A.B. Los Angeles Smith, Marion Lenore F., A.B. Los Angeles Smith, Ruth Cordry F., A.B. Los Angeles Smyder, Stella May J., A.B. South Pasadena Sowden, Grace Evelyn S., A.B. Los Angeles Sparey, Albra L. S., A.B. Los Angeles Speicher, Mary Maude J., A.B. Los Angeles Spinks, Leon F., A.B. Los Angeles
Smith, Eva Mae
Smith, Edwin Thomas. F., A.B. Chula Vista Smith, Gladys. F., A.B. Los Angeles Smith, Hilda. F., A.B. Los Angeles Smith, Lillian. F., A.B. Los Angeles Smith, Marion Lenore. F., A.B. Los Angeles Smith, Ruth Cordry. F., A.B. Los Angeles Snyder, Stella May. J., A.B. South Pasadena Sowden, Grace Evelyn. S., A.B. Los Angeles Sparey, Albra L. S., A.B. Los Angeles Speicher, Mary Maude. J., A.B. Los Angeles Speicher, Mary Maude. J., A.B. Los Angeles Spinks, Leon. F., A.B. Los Angeles
Smith, Gladys F., A.B Los Angeles Smith, Hilda F., A.B Los Angeles Smith, Lillian F., A.B Los Angeles Smith, Marion Lenore F., A.B Los Angeles Smith, Ruth Cordry F., A.B Los Angeles Snyder, Stella May J., A.B South Pasadena Sowden, Grace Evelyn S., A.B Los Angeles Sparey, Albra L S., A.B Los Angeles Speicher, Mary Maude J., A.B Los Angeles Spinks, Leon F., A.B Los Angeles
Smith, Hilda
Smith, Lillian
Smith, Marion Lenore
Smith, Ruth Cordry
Snyder, Stella May
Sowden, Grace Evelyn
Sparey, Albra L
Speicher, Mary Maude
Spinks, LeonF., A.BLos Angeles
Spinks, Leon
Caurinos Alma Mantralla Sp. A.B. Ontario
Squires, Aima MarkenaOlitario
Standifer, TomF., A.BHouston, Texas
Standlee, Lela MayF., A.BDowney
Stark, Russell EarlF., A.BLong Beach
Steffy, Eva Pearl
Stephenson, Clara CrockettF., A.BLos Angeles
Stephenson, Effie BrownF., A.BLos Angeles
Sterns, Hubert GilmoreF., B.SLos Angeles
Stieglitz, Marsteller W. B. F., A.B. San Pedro
Stine, Richard WF., B.SLos Angeles
Stone, Glenn Everet
Stranberg, Henry HermanJ., A.BWhittier
Suman, John RobertS., B.S
Swain, Alma
Swain, Frank GrahamF., A.BWhittier

Taft, A. Z	J., A.B	Hollywood
Taft, B. Y		
Taft, Mildred Blanche	F., A.B	Hollywood
Tagg, Harriet Grace	S., A.B	San Bernardino
Tamotsu, Kohno	Sp., A.B	Los Angeles
Taylor, Blanche Alice	S., A.B	Compton
Taylor, Howard Corbin		
Taylor, Robert J	G., A.M	Inglewood
A.B., Hamli	n University	
Temple, Julian Phelps	F., B.S	Hollywood
Teskey, Myrtle E	J., A.B	Los Angeles
Thomas, Ira G	F., B.S	South Pasadena
Thompson, Alice B	G., A.M	Los Angeles
Ph.B., Ali	na College.	
Thompson, Edd Griffin		
Thompson, William Ben	S., A.B	Los Angeles
Throop, Lotta Mae	J., A.BI	Brookings, S. Dakota
Throop, Ross M	F., A.BE	Brookings, S. Dakota
Throop, Waldo G	F., A.B	Los Angeles
Thurston, I. P	Sp., A.B	Los Angeles
Tilson, Archie Fuller	F., B.S	Corona
Tinker, Cleopatra	Sp., A.B	Douglas, Arizona
Tischhauser, Sylvia Dora	F., A.B	Los Angeles
Titus, Mabel Eleanora	F., A.B	Los Angeles
Tottenham, Kathleen Cliffe	F., A.B	Los Angeles
Trask, Ida Mary		
Traynor, Wilfred	F., A.B	Los Angeles
Trotter, Harry Ebert	F., A.B	Fillmore
Trussell, Mary	F., A.B	Escondido
Trythall, Anna Lavina	S., A.B	Los Angeles
Tupman, Alice Kate	S., A.B	Los Angeles
Turner, Frank Le Grande	Sp., A.B	Los Angeles
Twining, Mrs. Jennie May		Mendola, Ill.
A.B., A.M., University	of Southern	California.
Uber, Edna Radcliffe		
Underwood, Ethel May	F., A.B	Whittier
Valentine, Jean Mae	F., A.B	Los Angeles
Vaughan, Elizabeth Beatrice	F., A.B	Santa Monica
Vernon, Charles Clark, Jr	F., B.S	Los Angeles

Vertrees, May		
Vinsel, Edna Jessie		
Volk, Kenneth Quinton		
Wade, Henry N		
Walberg, John Daniel		
Wallace, Kenneth	J., A.B	Los Angeles
Walters, John Earl	F., A.B	South Pasadena
Walton, Munroe L		
Ward, Marion	F., A.B	Los Angeles
Warner, Willis Huxley	J., B.S	Huntington Beach
Watson, Fern Leannah	F., A.B	Reedley
Weaver, Charles Raymond		
Weaver, Royal Arthur	G., A.M	Highland Park
A.B., Univ. of So. Cal.	B.D., Drew	Theol. Sem.
Webster, Mary Halleck		
Weir, Edith M		
Weis, Jasper		
Weitbrecht, George, Jr		
Wellborn, Mildred		
Wells, Marion Sybil		
Wenk, Elizabeth		
Werner, Gustav Adolph		
Weseloh, Emilie Marguerite		
Wharf, Bess W		
Wheat, George G		
Wheelan, Robert B		
Wheeler, Mildred Lucile	F., A.B	Pasadena
White, W. E		
Whitman, George Colin		
Whittemore, Elsie Louise		
Wiley, Lena Ellen		
Wilkinson, Roy Albert		
Willett Grace Alice	Sr., A.B	Los Angeles
Willett, Hugh C	G. A.M	Los Angeles
A.B., University of		
Willis, Margaret Evangeline	F., A.B	San Francisco
Wills, Meredith Elsensohn	F., A.B.	Brawley
Winans, Ida Isadora	J., A.B	Los Angeles
Wirsching, Carl B	Sr. B.S.	Los Angeles
Triboling, Carr D		

Witherell, Edith Hope	F., A.B	Los Angeles
Woertendyke, Howard Porter	F., A.B	Los Angeles
Wood, Glen Frederick	F., B.S	San Luis Obispo
Woods, Richard Phillips	S., A.B	Los Angeles
Woodsum, Anna Vere	F., A.B	Los Angeles
Wrisley, Pearl Hayden	S., A.B	Los Angeles
Yerge, Clyde S	S., B:S	Los Angeles
Yerington, Alice	F., A.B	Los Angeles
Zander, Lucille Elaine	J., A.B	Los Angeles
Ziegler, Ethel Grace	S., A.B	Long Beach
Zinn, Cleo J	F., B.S	Los Angeles

#### SUMMER SESSION, 1909.

Adams, Winola Avakian, Arsen Harootune Baker, Dwight Condo Barden, Harold Edward Benkert, Robert Biggin, Helen Mable Bigelow, Emma Lorinne Blackburn, Porter C. Boggs, Ina V. Boller, Gordon Bonoff, Karl M. Bostwick. Florence Fern Bowers, Alice Teresa Bowers, Chester Herbert Bowser, Charles A. Bridges, Sadie Ethel Burleson, Frank Edward Chadwick, Nina May Chamley, Otto David Clark, Donald Lemen Claypool, Jack Blandy Coyne, Robert J. Creyhton, Neal Crooker, Leon James

Cynn, Hugh H. Darling, Richard James Davidson, Joseph George Douglass, Mrs. Ida W. Duncan, Dorothy Dunn, Frank Exline, Irma M. Faries, David Reid Fletcher, Katheryn Gavnor, Alta Elizabeth George, Edna Gibson, Harry Gilson, Lewis Edward Gould, Jesse A. Grow, Jesse Avery Guild, Ellis Darwin Hall, Winfield S. Harriman, William Ruddy Heizman, Edwin Hill, Agnes Leona Hirsh, Harry Hollan, Margaret Frances Hooker, Harry Edwin Howard, Frances

Huffman, Hazel Lundstrom Hunter, Henry Allan Johnston, John M. Keeney, Florence Alice L. Kleinman, Charles Knoch, Alice Cornwall Knopf, Carl Sumner Kuykendall, Alfred Liang, Hing Luen Locke, Charles Edward, Jr. Lovett, Mamie Lewis M'adden, George Hompton Magnuson, Forsten Alexis Malan, Martha Angeline Malan, William Edward McClurkin, Arthur McGorray, Jeannette Mead, Hazel Helen Merriman, Harold Almerin Mitchell, Harry Mock, Nannie E. Morrison, Lloyd Frares Myrick, Lydia Namkoong, David Yum Nelgner, Ida

Nye, Alice Witherell Oakley, Elizabeth Mary Oxman, Garfield Bromley Pfiester, Corinne Polkinghorn, William Reed, Wallace Allison Rice, Nettie Belle Roberts, Charles Wesley Robertson, Blanche Louise Rosenkranz, Elias Victor Samuels, Minnie A. Scholl, Agnes Julia Scovel, Edith Savina Shepard, Anne Loomis Stafford, Adelaide Thompson, Ruth Tolbert, H. V. Tucker, Myrtle M. Tuttle, Rollin Simpson Van Zandt, Elwyn B. Watkins, William Henry Watson, Dolores Marie Weaver, Charles Raymond Wirsching, Carl B. Wyatt, Julia Blanche

### PREPARATORY SCHOOL

FIRST YEAR.

Allin, Helena
Arnold, Pearl
Barlow, Gladys Anna
Beckett, Francis Haynes
Beeks, Chester Warren
Bigelow, Irene
Bilson, Ida Maie
Boggs, Aura Clare
Brode, Beulah Jeannette
Brown, Stuart Douglas

Culbert, Daphne
Cannon; Laura Altha
Carson, Walter Lloyd
Chamlee, Hattie Pearl
Chang, Wilbur K.
Chapman, Llewellyn Sidney
Child, Beulah
Clement, Hallowell Fernando
Clendenon, Lida Kathleen
Collins, Herbert

Dyar, Dorothy Margaret Earl, Harley J. Eisenmayer, Charles P. Flory, Arthur Franklin, Mary O. Frederick, Grace Esther Frum, Archie Guy Granger, Florence Guthridge, Russell M. Hale, Marguerite Florence Hardenburgh, Charles George Hastings, Leona Helm, Lynn, Jr. Hiscock, Eula Ewin Hogan, Van Der Veer Holland, Walter Holliday, Nathan Ira Holmes, George Glenn Howe, Marion Sprague Hughes, Norman Conrad Hughes, Reed William Inwood. Ruth Isdell, James Edward Johnson, Carl Edwin Kam, Jessie Angeline Kennedy, Mildred Frances Killion, Earle Daniel La Porte, Otho Paul Daniel La Porte, Rollo Collor Lawrence, Mabel Jarvis

Leatherwood, Karl Albert Lloyd, Charles E. Long, Tirrell Lyman Lovelace, Kattie Rosamond Miller, Paul Burt Mosher, Walter Edwin Neuhart, Florence Obear, William Frank O'Neil, Emma Eileen Peloubet, Edith Carlyle Philbrick, John Van Ness Polkinghorn, Will Arthur Powell, Susie Cornelia Ramsay, William Leslie Roe, Ethel Shaffer, Grace Leone Shaffer, Mabel May Sherrod, Esther Smith, Frank Macpherson Smith, Harold James Smith, Lois Kedron Stanberg, Mildred Dona Stone, Mardiros Kevork Thayer, Harry Thomson, Donald Mayborn Vogel, Bert F. Willcox, Lutie Louise Williams, Vernon Clark Woertendyke, Harold Westley Yokayama, T.

#### SECOND YEAR.

Acklin, Ethel Helen Adams, Winola Black, James Preston Boggs, Ina Viola Brodbeck, Mary Brown, Nina Monica Caldwell, William Jackson Chamlee, Archie Chan, Edward Spencer Clark, Loren Tompkins Coller Clara Collins, Lucille Mildred

Crabill, Hazel Dell Creighton, Thomas Neal Daniel, Roy Clifford Day, Clyde Amos Day, Zylpha Lauretta Flory, Earl Lester Fowler, Hazel Marjorie Frazier, Roland Hilliard Gaynor, Alta Elizabeth Gibson, Harry Gilfillan, J. Gould Haupt, William Frederick Hine, Helen B. Huston, Robert C. Joslin, Marion Lee, Andrew B. Locke, Charles Edward, Jr. Lorentzen, Julian Anna Lovett, Mame Lewis Lowe, Henry Marshall, Ruby Mead, Hazel Helen Miller, Edward Edwards Moles, Hazel Netitia Morrill, Lewis Lee Moses, Leigh O'Neil, Mary Phila

Reavis, John V. Price Reed, Le Roy Reed, Ruel Lafavette Reiche, Clarence W. Reily, Ralph Gamble Ryan, Samuel Benford Sakaizawa, Fsao Scovel, Edith Lavinia Scoville, Ethel Mae Shafer, Leroy Vincent Shimamura, T. Snowden, Mildred Ennuce Sowden, John Henry Spencer, Chester B. U. Sterry, Philip Hood Stivers, Virginia Irene Strong, Mildred Tedlock, Culley Claud Thompson, Samuel Harry Timmons, Robert Ward, Cecil Kennith Whitmeyer, John Lawrence Wilson, Cleio Ruth Wintrode, Henry I Wright, Todd Foster Yashima, Chinzo Yaw, Frances Myrtle

#### THIRD YEAR.

Ayers, Loren William Beckett, Wilbur Archer Boness, Louise Elizabeth Bovard, Gladys Freeman Brown, G. Frank Burch, Marguerite Chamberlin, Joie Eva Chan, Katherine Childs, Ruth Sherman Chrysler, Everett Nelson Chung, Margaret Jessie Coomber, Doris Patricia Corneliussen, Frederick A. T. Cory, Helen Ruth Crandall, Lane Dalin, Carl Arthur Darling, Richard James, Jr. Dyer, Adrienne Ernestine

Earl, Carl Everette Flick, Gertrude Lillian Foster, Emory Alfred Gibson, Bernice Edna Girdlestone, May Griffin, Herschel Raymond Johnson, Wilbur Wallace Knoles, Stella Ellen Lannon, Olive Gingell Lee, Pang Kwan Locke, James Edward Locke, Lydia Margaret MacDonald, Gladys Rachel Mahoney, Mildred Agnes Mayer, George Kenney Meserve, Dorothy Annette Murdock, George Vencent Namkoong, David Y.

Obear, Katharine Olson, Clarence Raymond Parker, John Tyler Parmelee, Lester Vernon Patton, Stanley Flickinger Peck, Claude Elwood Salisbury, Howard G. Shartle, Hazel Artha Shaw, Myra Mary Stabler, Dwight Wilbur Thorne, Elsie May Vermilion, David Wallace, Donald Joseph Watson, Homer William Willcox, Vivian Alma Williams, Eugene D. Woods, Steele Slaughter Zimmerman, Louise

#### FOURTH YEAR.

Aber, Ruth Irene Anderson, Frances Williard Anderson, Mary Ruth Ayers, Lucile Jane Biggin, Helen Mable Bowers, Alice Teresa Brown, Laura Elizabeth Brown, William F. Buffington, Lillian Gertrude Buffington, Olive Lay Carr, Brenton Stanley Caruthers, Eugene Gurley, Jr. Chambers, Jennie L. Colburn, John R. Davis, Robert Stephens Eaton, Ralph J. Fisher, Ruth Lulu Forker, V. Eugene

Getty, Jean Paul Hall, C. Walter Hammond, Emma Evelyn Harden, Fannie E. Henderson, Carl Rankin Holloway, Joseph David Hunter, Graham Burgess Jolley, Frances Kast, Emma Johanna Kawamoto, Tesuo Knoch, Alice Cornwall Lewis, Joseph Reynolds, Jr. Long, Emmet S. Lovell, Alta Josephine Lusk, Edgar W. Malan, Martha Angeline Mann, Ernest Lee McDowell, Alfred

Mitchel, Hoyt Hickman Newberry, Claire Squires Norton, Ward Butler Parks, Clara Aline Powell, Walter Prosser, J. Don Rivers, Ernest Bedford Sharkey, Dorothy Adele Sisk, Catherine Davida Sowden, Nellie Margaret Van Aken, Gertrude Elizabeth Ward, Robert Winnie Wotton Leona Ella

# COLLEGE of PHYSICIANS & SURGEONS

#### FRESHMEN.

Bames, Otto
Bell, Jr., Frank
Blake, Wendell Phillips
Blass, Mrs. Rosa Barney
Bowers, Chester H. (A.B.)
Carter, Ray Alden (A.B.)
Chadwick, Benjamin Cole
Citron, I. Jesse
Curl, Robert Latta
Dieterle, Karl Lional
Dunsmoor, Robert M.
Eisen, Edward George
Felch, Miner Frank
Forsyth, Laurin Alma
Ginsburg, S. S.

Jones, Robert Melvin
Kelley, Gilbert A.
Kittle, Walter Francis
Larzalere, Ray Verplank
Lucey, David D.
McCrea, Miss Agnes Benford
Parrett, Owen Samuel
Reeves, James Walter
Rogers, Earl Leroy
Sands, Raymond Arthur
Schwartz, David D.
Shattuck, Alvin
Shaw, Mrs. Rovena Josephine
Smith, Harold Wilbur
Webb, Arthur Curtin

#### SOPHOMORES.

Ammann, Francis Xavier
Avery, Lewis Gorton
Boyer, John Ira
Charleston, Vernon Claude
Davey, Edgar Charles
Flinn, Homer John
Foye, Frank Alonzo
Hall, Will E.
Jeffers, John Robinson (A.B)
Nelson, Fred Howell

Patric, Miss Gladys Emilia Ronan, Richard Robert Smart, Eliott Plummer Stokes, William Ellis Stookey, Byron Polk (M.A.) Thurber, Delos Packard Thurber, William Grant Wilson, Loren Everett Yager, William Laurence

#### JUNIORS.

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Benjamin, Irvin Bernard
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## SUMMER STUDENTS, 1909, NOT ENROLLED DURING THE YEAR 1909 TO 1910.

Hasking, William Charles Hart, Abram Caruthers Hoyt, Charles Jack, Ford M. Russell, A. J. Schulman, Bernard Williams, Charles Ezra Yager, Thomas Charles

#### POST-GRADUATES.

Bowers, Walter Crandall, Elbert Earl Enyeart, Clair Goode, Ray Edgar Louis, Irvin Charles Monteleone, Stephen Schweitzer, Dell Selph, Ewald Smith, Karl Hervey Veitch, Arthur Lee Willis, William H.

# COLLEGE of DENTISTRY

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Algeo, Walter S. Bidwell, H. H. Bundy, Arthur R.

Nokes, I. D. Payette, A. A. Peden, Thomas R. Pool, C. H. Puckett, C. W. Reid, E. C. \*Rohrbacher, E. C. \*Seeling, Sam I. Sparks, P. A. Straub, Harry E. Sutton, C. L. Tanaka, Frank F. Todd, G. C. \*Van Osdell, Charles Wells, R. B. Williams, Frank Wilson, John M. Wesner, M. H. Yamaguchi, M. \*Yamatini, George

#### JUNIORS.

Bailey, H. P. Chang, Dai Yen Crane, C. W.

<sup>\*</sup>Not in attendance.

Crawford, J. F. Crew, Lelia Craven, E. A. Day, Chester A. Dunlap, John F. Fukasawa, Harry Glassell, H. P. Gottlieb, Theodore Henderson, M. M. Jackman, G. Floyd Jackson, A. C. Kirkpatrick, H. D. Kelsey, Mark Maclin, John Menges, M. M. Messner, Karl M. McCoy, John R. McElhaney, M. A.

Mitchell, F. W. Moore, Leon D. Moore, G. W. Nance, Ed. F. Pertson, Louis A. Roberts, Karl K. Sargent, Ray Schildwacther, Harry Snipes, Thomas W. Smale John Smith, Hyrum G. Smithers, John E. Stephens, Frank Stover, W. T. Sunderland, Egbert Worth, Clarence Yates, Edw. W.

#### SENIORS.

Messner, E. M.
O'Conner, Williams
Riggs, William A.
Schuessler, R. W.
Turrentine, D. E.
White, Roy M.
Whitmore, W. T.
Baskerville, R. L.

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Ashmore, Grant

Copp, Joseph P.

Davis, Hugh M.

\*Doyle, Jr., C. A.

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Jarvis, Hollis A.

Maile, John V.

Clark, Earl L.

Green, M. T.

Backstrand, Lillian Ball, Bessie Barnes, Letha Barnett, Rena Barry, Mrs. J. M. Beck, Helen

<sup>\*</sup>Not in attendance.

Best. Edna Bishop, Herold Black, Lena Blanchard, Mr. J. V. Blois, Verna Boggs, Aura Boggs, Ina ·Bowman, Esther Boughton, Hattie Buffington, Lillian Buffington, Olive Buffington, Elizabeth Butler, Mattie Brown, Stella Brown, Myrtle Bryson, Jenette Cannon, Laura Carpenter, Thankful Carson, Gladys Carson, Valarie Chamberlin, Stella Chamberlin, Joie Chan, Katherine Childs, Ruth Clark, Agnes Clark, Isabella Clemons, Eleanor Cochran, Mrs. J. N. Collins, Lucille Colvin, June Cook, Hazel Coyne, Ethel Crandall, Mrs. Pearl Crist, Margaret Davidson, Esther Davis, Mary Day, Blanche Dinsmore, Lura Dinsmore, Margurita

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Poole, Ethel
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Pezzoni, Millie
Read, Mary
Reeves, Lulu
Reynolds, Myra
Rush, Louise
Scherer, Helen
Scherer, Dorothy
Schoeller, Marjorie
Scoville, Ethel

Sevier, Carrie Sevier, Carl F. Shaw, Myra Shepard, Merle Sims, Violet Shields, Mildred Smith, Grace E. Smith, Ethel Smith, Leonard Smith, Mabel Smith, Rachel Spencer, Sibyl Spencer, Gladys Stalker, Elsie Stephenson, Clara Swain, Frank Tagg, Grace Tinker, Cleopatra Tucker, Myrtle Trussell, Mary Vignes, Edwine Webb, Evah Webster, Hallie West, Ruth Whittemore, Elsie Wiles, Edna Williams, Emma Wildey, Fern Winans, Isadora Wintrode, Isabel Wright, Maude Mary

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Mealy. Roy

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Perry, E. H.
Ross, Fred H.
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Smith, Fred A.
Smith, Ray

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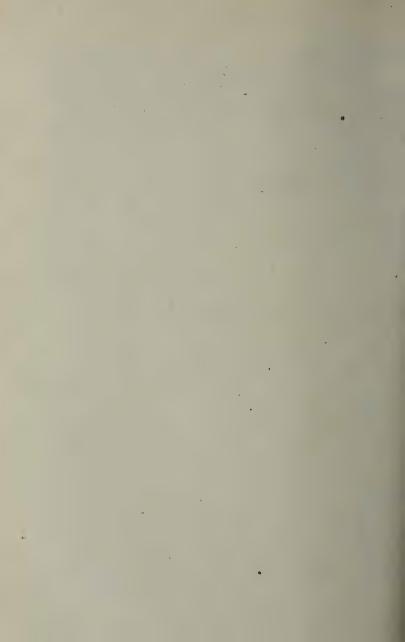
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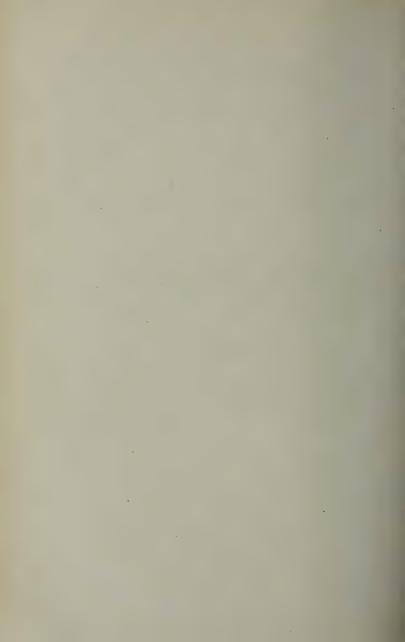


# HIGH SCHOOL TEACHER'S CERTIFICATE

AT a meeting of the State Board of Education held in Sacramento February 10 1911, the UNIVERSITY of SOUTHERN CALIFORNIA was duly authorized to issue recommendations for the High School Teacher's Certificate.

Students expecting to become candidates for the High School Certificate should communicate with the Graduate Council regarding the particular requirements formulated by the University.

University of Southern California
YEAR BOOK
1910-1911



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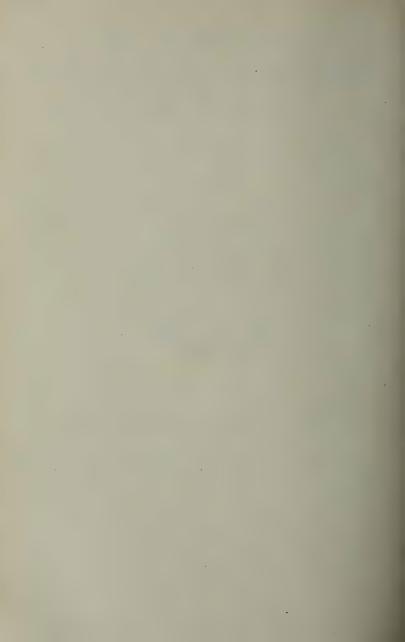
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With Announcements for 1911-1912

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LOS ANGELES, CALIFORNIA



### THE UNIVERSITY

The University of Southern California was founded in 1879, and was formally opened for students in October, 1880. It includes the following colleges, each of which has a distinct faculty of instruction:

- College of Liberal Arts—35th Street and Wesley Avenue. George F. Bovard, A.M., D.D., LL.D., President Roy E. Schulz, A.B., Secretary.
- College of Physicians and Surgeons—516 E. Washington St. Charles W. Bryson, A.B., M.D., Dean. Walter S. Johnson, A.B., M.D., Secretary.
- College of Dentistry—Fifth and Wall Streets. Lewis E. Ford, D.D.S., Dean. William Bebb, D.D.S., Secretary.
- College of Law—Exchange Bldg., Third and Hill Streets. Frank M. Porter, A.B., LL.M., Dean. Gavin W. Craig, LL.M., Secretary.
- College of Theology—35th Place and Hoover Street. Ezra A. Healy, A.M., D.D., Dean. James Blackledge, A. M., Secretary.
- College of Pharmacy—35th Street and Wesley Avenue. Laird J. Stabler, M.S., Ph.C., Dean. Arthur R. Maas., Ph.C., Secretary.
- College of Music—35th Street and Wesley Avenue. Walter F. Skeele, A.B., Dean. Charles E. Pemberton, Secretary.
- College of Oratory—35th Street and Wesley Avenue.
  Beulah Wright, Dean.
  Gertrude Comstock, Ph.B., Secretary.
- College of Fine Arts—201 North Avenue 66. William L. Judson, Dean. Pearl Judson, Secretary.
- The Marine Biological Station—Venice, California.
  Albert B. Ulrey, A.M., Director.

A Preparatory School is maintained in connection with the College of Liberal Arts.

Information concerning any of the colleges, and year-books containing the courses of study, etc., will be mailed upon application to the addresses given above.

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These names include all the names of the first Board of Endowment Trustees and the first Board of Directors, and hence may be fairly held to represent the founders.

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### GOVERNMENT OF THE UNIVERSITY

The government of the University is committed to a Board of twenty-one Trustees. This Board has the power to elect professors and other officers of instruction, to confer degrees, to manage the property of the University Corporation, and to determine the general policy of the institution.

The President has charge of the educational administration of the University and is chairman of the University Council. The principal administrative officers, other than the President, are the Deans, who have immediate charge of the work of the several faculties.

The University Council is a representative body consisting of the President, and the Dean and Secretary (or some other member of the faculty) of each of the several colleges. It is the duty of the Council to consider the courses offered by the several colleges with a view to increasing the efficiency and enlarging the range of University work, encourage original research and adjust all questions involving more than one of the colleges, and to advise the President upon such matters as he may bring before it.

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Los Angeles is the metropolis of Southern California. Its population of about 325,000 represents almost every State in the Union and many foreign lands.

The climate throughout the year is such that tourists from every quarter come to spend a part of the year, and many

return to make this their permanent home.

It is the greatest railroad center on the Pacific Coast. Four transcontinental lines are now complete. A network of electric roads connects the city with the numerous beaches, mountain resorts and outlying towns. These are reached by

delightful journeys through orange groves and orchards of semi-tropical fruits characteristic of the region.

Los Angeles is known as the Convention City of the West. Every year brings large bodies of people here for the discussion of every kind of public interest known to science, politics, religion and the humanities.

These great conventions afford the student an excellent opportunity to study the subjects of their discussion, while the resident population of the city is sufficiently large to afford important advantages for the study of sociology and kindred subjects.

The diverse view-points of the groups of students in the nine colleges make their association an important educational factor.

The University campus is in close proximity to Exposition Park, in which a million dollars are being expended in erecting buildings and beautifying the grounds. The State Exhibit Building will contain exhibits of the products, mineral and vegetable, of every county of the State. The Museum of History, Science and Art will contain the valuable collections of The Historical Society, The Academy of Sciences, The Cooper Ornothogical Society, and The Art League of Los Angeles, besides numerous private collections. These buildings will be open to the public. They will afford special advantages to the students and faculties of the University, because of their easy access.

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### COLLEGE OF LIBERAL ARTS

### CALENDAR

### 1911

- September 12 (Tuesday) to Sept. 14 (Thursday), Entrance Examinations and Registration for the First Semester.
- September 15 (Friday).

  Instruction begins and first Assembly of First
  Semester held.
- November 23 (Thursday) and November 24 (Friday).
  Thanksgiving Vacation.
- December 18 (Monday). Christmas Vacation begins.

### 1912

- January 1 (Monday). Christmas Vacation ends.
- January 25 (Thursday).

  Day of Prayer for Colleges.
- January 29 (Monday) to February 6 (Tuesday).
  Mid-Year Examinations.
- February 6 (Tuesday) to February 8 (Thursday).

  Entrance Examinations and Registration for the Second Semester.
- February 9 (Friday).

  Instruction begins, and First Assembly of Second Semester held.
- February 22 (Thursday).
  Washington's Birthday.
- March 25 (Monday) to March 31 (Sunday). Spring Vacation.
- June 3 (Monday) to June 11 (Tuesday). Final Examinations.
- June 9 (Sunday). Baccalaureate Sunday.
- June 13 (Thursday). Commencement.
- June 13 (Thursday). Alumni Reunion and Banquet.
- June (-) to July (-). Six Weeks' Summer Session.

### ADMISSION TO THE FRESHMAN CLASS

### 1.-Admission by Certificate

Candidates for admission to the freshman class must be at least sixteen years of age and must present evidence of good moral character. They must also give, either by certificate or by examination, evidence of preparation in 15 units of preparatory subjects selected from the general list of subjects described on the following pages. These 15 units must be made up of the following:

English,				2 units*
A Foreign Languag	ge,			2
Science,				1
Algebra and Plane	Geom	etry,		2
U. S. History and (	Civics,			1
Electives, .				7

The electives are determined entirely by the requirements for admission to the college course which the student desires to pursue.

For admission to the Engineering Course the 15 units must include the following:

English,		3	,		2 units
A Modern	Language	e,			2
Chemistry,				٠.	1
Physics,					1
Elementary					
Alvanced A	lgebra,		٠.		 1
Plane Geor	metry,				1

<sup>\*</sup>The term "unit" is used to denote a preparatory subject studied through one school year with five class exercises (or the equivalent) per week.

Trigonomet	, .	1				
U. S. Histor	y and	Civio	cs,			1
Freehand D	rawing	3,				1
Mechanical	Draw	ing,				1
Electives,						2

Candidates who have completed a regular course in the Preparatory School of this University, or in an accredited high school, may be admitted to the College of Liberal Arts without examination, on presenting a certificate signed by the principal. Unconditional credit will be given only for entrance subjects in which the candidate is specifically recommended. Recommendations will be accepted from any school accredited by this University, Leland Stanford Junior University, or the University of California. The faculty reserves the right, however, to require an examination upon any or all of the studies set for entrance, whenever there is doubt that the preparation has been sufficient. To insure entrance without examination credentials should be presented as early as possible before registration.

### 2.—Admission by Examination.

The regular examination for admission will begin Tuesday, September 12, 1911, when candidates will be examined in all the required admission subjects not covered by certificate from an accredited school.

### 3.-Conditional Admission.

Candidates may be conditionally admitted to the freshman class, if they are not deficient in more than twenty semester hours (two units of preparatory work, but each case is referred to a faculty committee and only by vote of this committee can such admission be gained. They must, however, remove all such conditions before they may obtain junior standing.

### PREPARATORY SUBJECTS

The following items will serve to indicate both the kind and the amount of work expected in the different preparatory subjects accepted for admission, as well as the units of credit allowed for the same.

1. English. A short essay on an assigned subject will be called for, with the purpose of testing accuracy in spelling, punctuation, division into paragraphs, and power of expression in clear and correct English.

The candidate will also be required to give evidence of a thorough study of elementory rhetoric and classic myths; and will be tested as to his knowledge of the subject matter, form and structure of the following works (or their equivalent:

Scott's Lay of the Last Minstrel and Ivanhoe; Hawthorne's Tales of the White Hills; Selections from Irving's Sketchbook; Lowell's Vision of Sir Launfal; De Coverly Papers; Coleridge's Ancient Mariner; George Eliot's Silas Marner; Carlyle's Essays on Burns; Macaulay's Essays on Warren Hastings; Tennyson's Idylls of the King; Shakespeare's Merchant of Venice and Julius Caesar. (2 units.)

2. English Literature With outline history of its development. Chaucer's Prolog; Gray's Elegy; Wordsworth's Tintern Abbey, and Odes on Intimations of Immortality and Duty; Milton's Minor Poems; Shelley's Odes To Night and To a Skylark; Keats' Ode to a Nightingale; Browning's Epilogue to Assolando and Rabbi Ben Ezra; Burke's Conciliation; Webster-Hayne Debate; Shakespeare's Midsummer-Night's Dream and Macbeth. (1 unit.)

[Note: When a candidate shall offer, in addition to the above, an equivalent amount of other classics such as may be acceptable to the department of English, another unit will be granted.]

3. Elementary Algebra. This should include the following subjects: The four fundamental operations with emphasis placed on the type-forms in multiplication and division,

factoring, highest common factor, and lowest common multiple, fractions and fractional equations, simultaneous equations of the first degree, the binomial theorem for a positive integral exponent, evolution, theory of exponents, radicals, quadratic equations, and the solution of problems involving the various classes of equations. Emphasis should be placed on factoring and on the solutions of equations. (1 unit.)

- 4. Advanced Algebra. This should include the following subjects: Mathematical induction; the proof and the use of the remainder and the factor theorems; the binomal theorem for a positive integral exponent; evolution, including the extraction of any root of algebraic polynomials, and also of arithmetic numbers; theory of exponents; complex numbers; radicals, and irrational equations; theory of quadratic equations; simultaneous quadratics; inequalities; ratio, proportion and variation; arithmetic, geometric and harmonic series. Emphasis should be placed on the solution of equations by factoring, and on the demonstration of laws and principles. (1 unit.)
- **5. Plane Geometry.** This includes the usual theorems and problems of elementary plane geometry. An important part of the work should be the solution of original exercises including problems in mensuration. (1 unit.)
- 6. Trigonometry and Solid Geometry. The development of the general formulae of elementary plane trigonometry; the theory of logarithms and the use of logarithmic tables; the numerical solution of plane triangles, and of simple problems in heights and distance. The fundamental propositions of solid geometry and especially those of spherical geometry. (1 unit.)
- 7. Chemistry. Laboratory and text-book work for one school year, such as outlined in Remsen's Introduction to the Study of Chemistry, or Newell's Experimental Chemistry. At least four hours per week throughout the year is required of actual laboratory practice in order to complete the amount of laboratory work desired. (1 unit.)

- 8. Physics. The equivalent of one year's work, including both laboratory and text-book work. Accurate notes of the laboratory work should be kept. Gage's Elements, or Carhart and Chute's High School Physics will serve to indicate the amount of text-book study required. (1 unit.)
- 9. Botany. A study in the laboratory and field of types of plant groups. Drawings and notes made directly from the specimens must be submitted as evidence of the character of the work done. A full year's work. (1 unit.)
- 10. Zoology. One year's work on the structure, relationship and habits of animals. Laboratory note-books with drawings will be required. (1 unit.)
- 11. Physiology. An equivalent of Martin's Human Body, —Shorter course. (1 unit.)
- 12. Physical Geography. The study of one of the leading text-books supplemented by at least forty exercises in individual laboratory work. (1 unit.)
- 13. Elementary Latin. For the requirements of Elementary Latin an accurate pronunciation is necessary, a thorough knowledge of regular form and principles of syntax—a vocabulary of about fifteen hundred words, and the ability to translate easy prose at sight, and to write simple sentences. These attainments can be secured from the careful study of an elementary text-book and four books of Caesar, together with oral and written composition and occasional practice in sight translation. The examination in composition in 1911-1912 will be based on the second book of Caesar's Gallic War. (2 units.)
- 14. Advanced Latin. For the requirements of Advanced Latin the ability to translate at sight portions of Cicero's orations and Vergil's Aeneid is necessary, familiarity with the principles of the Latin hexameter and the ability to translate a passage of connected English based on Cicero. These attainments can be secured from the careful study of six of Cicero's orations and six books of Vergil's Aeneid, together

with very thorough drill in oral and written composition. It is expected that a certified composition book will be presented for entrance credit. The examination in composition in 1911-1912 will be based on the oration Pro Archia. 2 units; without the composition, 1 unit.)

- 15. Elementary Greek. Grammar and Lessons; Anabasis, book I-III; prose composition. (2 units.)
- 16. Advanced Greek. Anabasis, book IV; Iliad, books I-III; prose composition; sight reading; review of the Grammar. (1 unit.)
- 17. German. A knowledge of the inflections of articles, nouns, adjectives, pronouns, weak verbs and usual strong verbs; also of the use of the modal auxiliaries, the common prepositions, the simpler uses of the subjunctive, and the order of words; the reading and translation of stories and plays, such as Storm's Immense and Benedix's Der Prozess; translation of easy English into German, translation at hearing and pronunciation. (2 units.)
- 18. French. A knowledge of the essentials of grammar, including the inflections of nouns, adjectives, pronouns, regular and common irregular verbs; the use of personal pronouns and the elementary rules of syntax; ability to pronounce accurately and to read smoothly; translation of modern stories and plays, such as About's Le Roi des Montagnes and Labiche and Martin's Le Voyage de M. Perrichon; translation at hearing and at sight; translation of easy English into French. (2 units.)
- 19. Spanish. Grammar, Garner, Monsanto or De Tornos; reading from Matzke's Spanish Readings, Knapp's Spanish Readings, Pepita Jiminez; translation of easy English into Spanish, and simple conversation in Spanish. Special importance attached to a knowledge of Spanish verbs. (2 units.)
- 20. English History. Coman and Kendall or an equivalent. (1 unit.)

- 21. Grecian and Roman History. Myers, or an equivalent. (1 unit.)
- 22. Mediaeval and Modern History. Myers, or an equivalent. (1 unit.)
- 23. United States History and Civil Government. Channing, and Fisk, or an equivalent. (1 unit.)
- 24. Freehand Drawing. The study of light and shade and perspective by drawing and shading with pencil from geometric and simple life objects. ( $\frac{1}{2}$  to 1 unit.)
- 25. Mechanical Drawing. The use of drawing instruments in line work, the construction of geometrical problems, and simple detail drawing. (½ to 1 unit.)

Note—In the case of students graduated from a recommended high school credit may be allowed for such subjects, not designated in this list, as are recommended by the principal and approved by the University faculty.

Candidates who offer subjects in Science will be required to present their note-books in the same.

### ADMISSION TO ADVANCED STANDING

Students from other institutions of recognized collegiate rank may be admitted to such standing and upon such terms as the Faculty may deem equitable, upon presentation of letters of honorable dismissal. Every such candidate is required to present a catalogue of the institution in which he has studied, with a full statement, duly certified, of the subjects he has completed, including subjects passed at entrance as well as those credited. The faculty reserves the right to determine, after a test of at least one semester, the amount of credit which a student may receive.

Graduates of State Normal Schools who are also graduates of accredited high schools may, upon the satisfactory completion of 75 semester hours, receive advanced credit amounting to 30-45 units toward a degree of Bachelor of Arts.

### ADMISSION AS SPECIAL STUDENTS

Persons of maturer age who desire to take up special work in one department, or in one subject with its related branches, may be admitted as special students, without becoming candidates for a degree; but they may become candidates by satisfying the entrance requirements for a regular course. Such students come under the same regulations as regular undergraduates, and forfeit their privileges by failure to maintain a good standing.

### MATRICULATION AND REGISTRATION

On or before the appointed registration days, in September and February, each student must register at the Registrar's office, and must enter upon a study card the subjects desired for the semester.

The study card, properly filled out and signed by the major professor and the Registrar, must be filed in the office not later than one week after the last appointed registration day. Late study cards will be accepted only upon the payment of a special fee of one dollar. A student desiring to enter any class must present his study card to the instructor for enrollment.

Students are urged to register on the appointed registration days. Absence from classes or laboratory are counted from the day on which instruction begins, and these absences incur the penalties stated under Absence from Exercises.

In the choice of subjects, all work necessary to remove conditions must be provided for first; and required subjects must take precedence of elective subjects.

Credentials will be considered at any time of the year, but since in general candidates cannot be assured of admission to the University without examination, it is important that credentials be forwarded as early as possible. Blanks for admission may be obtained by application to the Registrar's office.

### GRADUATION

### The Degree of Bachelor of Arts

The College of Liberal Arts offers as many courses from which the student may elect as there are departments in which a major is offered.

. Each course the student may pursue is designed to give a liberal education and, except in the Engineering course, leads to the degree of Bachelor of Arts (A.B.).

The student must complete one hundred twenty semester hours of college work (exclusive of the requirement in Physical Education), which includes the required subjects, a major in one department, and a related minor.

A semester hour means one exercise a week throughout a semester. It is intended that each hour of credit shall represent, for the average student, one hour of recitation or lecture, and two hours of preparation or subsequent reading per week, or an equivalent amount of work in laboratory courses.

Fifteen hours per week of recitations or lectures, or their equivalent in laboratory work, constitute an average semester's work. Students may register for as few as thirteen or as many as eighteen hours by making application to the Registrar.

The end of the sophomore year marks a differentiation in the work of the undergraduate course. In the junior and senior years the aim is toward University work in the true sense.

### REQUIRED SUBJECTS

In all the courses except in the Engineering Courses, in which the student is a candidate for the bachelor's degree, he must complete work as follows:

English, Rhetoric I., one year, six hours.

Science, one year, eight hours. (The science may be Chemistry, Zoology, Physics or Botany.)

Philosophy, one year, six hours.

Foreign Language, two years, twelve hours. (The language may be Latin, Greek, German, French, Spanish or Italian.)

History or Economics, one year, six hours.

Physical Education, four hours.

The Freshman year should be devoted to the completion of thirty hours of these required subjects.

In the Engineering Courses the work of the four years is required as outlined under Engineering Courses.

### Major and Minor Subjects

Each undergraduate student must select the work of some one department as his major subject, but the selection may be deferred until the second year. The requirements for major work, which range from a minimum of twenty-four to a maximum of thirty hours, are stated elsewhere under Courses of Instruction. An equivalent of ten hours' work must be taken in a related subject, known as the minor subject, and selected with the approval of the major professor.

Where a student who has already selected his major subject desires to change it, and is able to meet the requirements of the new major subject, the change can be made, if approved by the professor of the old and new major subjects.

### Elective Subjects

Except for the above required subjects, and the requirements of the major and minor subjects, the work required for graduation is elective; but the student will confer with the professor of the major subject, as well as with the President of the University, in selecting such subjects as bear some useful relation to the course he is pursuing.

### Classification of Students

Students who have no entrance conditions, and who have completed thirty semester-hours of the freshman year, are classed as sophomores.

Those who have completed sixty semester-hours are classed as juniors.

Those who have completed ninety semester-hours are classed as seniors.

Students who have completed one hundred twenty-four semester-hours, including all required work, and a major in one department with a related minor, are entitled to receive the degree of Bachelor of Arts.

### ABSENCE FROM EXERCISES

- 1. Excuse must be rendered for all absences from required exercises.
- 2. A student who is absent during a semester from more than one-tenth of the whole number of recitations or laboratory periods held in any subject shall be required to pass a special examination in that subject.
- 3. Where a student is absent from more than one-sixth of the whole number of recitation or laboratory periods, held during a semester in any subject, his registration in that subject is thereby cancelled. In case of such cancellation, however, if the student can show cause for his absence, and if his previous standing be such as to indicate that he can make up his loss and maintain a satisfactory grade of work in the subject, he may present his case to the Faculty and have his registration restored.

In applying this rule absence from the first or last recitation in a study, or consecutive absence in which either the first or last recitation is included, will be counted each as two absences.

4. Assembly exercises are held on Tuesday at 11:45 for Lower Division students; and on Thursday at 11:45 for Upper Division students. Attendance is required.

#### EXAMINATIONS AND GRADES

Regular examinations are held at the close of each semester in the studies that have been pursued in different classes. After the examination, the parent or guardian of every student receives from the office a report, giving the student's standing for the semester. The general character of the work of the students in their several subjects is indicated by one of four grades, ranging from grade A, denoting the highest excellence, through B and C, in a descending scale of merit to F, which signifies failure to pass.

A student whose work in a subject is marked conditioned or incomplete is delinquent in that subject. Such delinquency must be made up, in such manner as the instructor may determine, before the close of the year next after that in which the delinquency occurs. If the delinquency be not thus made up, the student is required to take the subject again with a class before he may receive credit for the same. A grade F may be removed only by taking the subject in class again.

When a student has incurred a failure in a subject he may not register for more than thirteen hours of new work in the following semester.

## **OPTIONS IN THE PROFESSIONAL COLLEGES**

When seventy-two hours (including all required work) have been made in the College of Liberal Arts, a student wishing to enter upon his professional studies before graduation from the College of Liberal Arts, may take the studies of the first year in the Medical Department of the University, and may receive the degree of Bachelor of Arts upon the satisfactory completion of three years' work in the professional course. Students electing this course are supposed to have completed a course similar to course C. or D. in the Preparatory School of the University, that is, requiring Drawing, Chemistry and Physics. At least one year of Latin is also required. (Any of these subjects not offered for entrance should be taken the first year.)

The required subjects in the College of Liberal Arts are the same as those for the regular candidate for the degree A.B., except that Zoology should be the elected Science, and German, the elected Language (provided Latin has been offered for entrance.)

The Pre-Medical Course (including required subjects) is outlined as follows:

#### Freshman Year

English, Rhetoric I., throughout the year, 3 hours.

Science, Zoology, throughout the year, 4 hours.

Language, German (if Latin has been offered for entrance) throughout the year, 5 hours.

History or Economics, throughout the year, 3 hours.

Elective, throughout the year, 3 hours.

Total, 18 hours per semester.

## Sophomore Year

Philosophy, Psychology, throughout the year, 3 hours.

Language, German, throughout the year, 3 hours.

Elective (Biology, English and History specially recommended), throughout the year, 12 hours.

Total, 18 hours.

The regulations for the current year shall prevail concerning fees.

When 94 hours (including all prescribed work) have been made, and of these not less than 72 in the College of Liberal Arts, the student may take the studies of the first year of the College of Law, and may receive the degree of Bachelor of Arts upon the satisfactory completion of two years in the professional course.

# THE DEGREE OF BACHELOR OF SCIENCE IN THE ENGINEERING COURSES

The degree of Bachelor of Science in Civil Engineering is conferred upon such candidates as may complete the four year's course in Civil Engineering.

The degree of Bachelor of Science in Electrical Engineering is conferred upon such candidates as may complete the four years' course in Electrical Engineering.

#### THE GRADUATE DEPARTMENT

#### Organization

The Graduate Department of the College of Liberal Arts of the University of Southern California is under the immediate charge of members of the Faculty known as the "Graduate Council," appointed by the president of the University. The Council for the college year 1910-11 is composed of the following members: Professors James H. Hoose, Chairman; Rockwell D. Hunt, Secretary; Thomas B. Stowell, James M. Dixon, Edgar M. von Fingerlin, and Gilbert E. Bailey.

# Purpose

It is the purpose of this department: 1. To give due prominence to graduate courses of instruction offered by the University. 2. To insure systematic and efficient administration of this higher work. 3. To provide separate instruction for graduate and upper division students.

# Duties

It is the business of the Graduate Council: 1. To fix conditions of admission to the Graduate Department. 2. To provide courses of graduate instruction; and to pass judgment upon the graduate courses offered by the respective departments, no one of which courses shall become operative without the approval of the Council. 3. To pass upon the credentials of all candidates for graduate courses. 4. To

establish and to maintain the requirements for all graduate degrees. 5. To formulate regulations for the effective organization and administration of the Graduate Department.

## Admission to the Graduate Department

Admission to the Graduate Department of the College of Liberal Arts is granted to graduates of this College and to graduates of other colleges and scientific schools of recognized standing who present satisfactory evidence of character and qualification. Other persons of suitable age and satisfactory attainment may be admitted to the graduate courses upon approval by the Council. (Admission to graduate courses of the college does not necessarily imply admission to candidacy for graduate degree.)

#### THE DEGREE OF MASTER OF ARTS

Each candidate for the degree of Master of Arts (A.M.) must be regularly enrolled in the College of Liberal Arts, and must pursue the course of graduate study in residence for at least one year. Registration must not be later than the first Tuesday in October preceding the date of final examination. The candidate must appear before the Graduate Council with a formal statement of credentials which shall set forth the work already completed by him. (This requirement is waived in the case of graduates of this University.) The candidate shall indicate the course of study which he wishes to pursue, which course must consist of a principal or "major subject," closely related to the major study of his undergraduate course, and one or two subordinate or "minor subject," requiring nor more than one-half of the time given to the major subject.

The work of the candidate mush show marked excellence. No candidate may select his course of study without the approval of the Council. A thesis embodying the results of investigation on an approved subject in the Major Department must be submitted and be approved by the Council before the candidate may be recommended for a degree. The

thesis must conform with the printed regulations furnished by the University. The subject for the thesis must be submitted to the Council for approval not later than the first of December, and the completed thesis must be presented not later than the last Saturday in April of the year in which the degree is conferred. Upon the satisfactory completion of the aforesaid graduate course and acceptance of the thesis submitted the candidate shall be recommended for the degree of Master of Arts.

# THE DEGREE OF MASTER OF ARTS AND THE DEGREE OF DOCTOR OF MEDICINE

Upon students who complete the course in the Medical Department of the University after receiving the Bachelor's degree from the College of Liberal Arts or other institutions approved by the College, the degree of Master of Arts will be conferred on the following conditions:

- 1. A candidate for the degree of Master of Arts who is at the same time pursuing the regular course in the Medical Department must matriculate in the College of Liberal Arts at least two years before receiving the Master's degree.
- 2. The candidate's research work must be planned in conjunction with the Committee on Graduate Study in the College of Liberal Arts.

Reports of progress in the research work shall be made at such times as may seem advisable to the Committee. The results of such work must be embodied in a thesis approved by the Committee on Graduate Study.

3. The regulations of the College of Liberal Arts shall prevail concerning fees and thesis.

# THE DEGREE OF CIVIL ENGINEER AND THE DEGREE OF ELECTRICAL ENGINEER

The professional degrees of Civil Engineer and Electrical Engineer are conferred on graduates of this University in the Civil Engineering and Electrical Engineering courses

respectively, on the satisfactory completion, in residence, of one year of graduate study, or on having been engaged in the active practice of their profession for at least three years, two of which shall have involved responsibility, and the presentation of an approved thesis showing ability to do independent work.

#### FEES AND EXPENSES

## Undergraduate Study

Tuition per semester, payable in advance	\$40.00
Tuition per year (two semesters) if paid	
in advance	80.00
Tuition for six to ten hours per semester	30.00
Tuition for five hours or less per semes-	
ter	20.00
Athletic fee-required of all students,	
per semester	2.00
Gymnasium and physical education with-	
out other studies, per semester	8.00
Registration fee included in the above,	
but not subject to rebate	5.00
Diploma fee	5.00
Laboratory fees, per semester:	
Each course in Chemistry requiring	
laboratory work	8.00
Assaying30.00 to	50.00
Physics:	
1 and 2 each	4.00
3 Mechanical	4.00
3 Mechanical	6.00
Electrical Measurements	6.00
Electrical Engineering:	
2 and 7 Dynamo Laboratory, each	8.00
Each course in Biology requiring lab-	
oratory work	4.00
Surveying, field work, per semester	2.50

An account is kept of breakage and an additional charge made therefor.

An additional deposit of five dollars to cover breakage is required in Chemistry. This deposit, less cost of breakage, is refunded at the end of the year.

The sons and daughters of ministers in the regular work of any evangelical denomination may have their tuition fee reduced to one-half the regular rate.

A discount of ten per cent. of the tuition will be allowed when two or more students enter from the same family.

Tuitions paid in advance will be refunded proportionately should the student be forced to leave school on account of sickness. No refund will be made for an absence of less than half a semester

## Graduate Study

Tuition per	semester, payable in advance	\$35.00
Registration	fee, included in above	10.00
Diploma fee		10.00

Students who have received the Bachelor's degree from the University of Southern California will pay only ten dollars per semester and the diploma fee.

## GENERAL INFORMATION

The College of Liberal Arts of the University of Southern California is situated in Los Angeles, about three and one-half miles southwest from the business section of the city. The College buildings are accessible by three lines of street cars, the Main Street, University and Pacific Electric lines. This is one of the most beautiful and rapidly growing residence portions of Los Angeles. The campus, comprising ten acres, has been improved by cement sidewalks and street grading on all sides, and a lawn in front of the main building.

#### Endowment and Improvements

The endowment of the College of Liberal Arts, started a few years ago by the munificent gift of sixty-five thousand dollars by the late Rev. Asabel M. Hough and wife, Anna G.

Hough, has steadily grown until it has reached the sum of four hundred and twenty-five thousand dollars.

Substantial improvements have been made in all of the departments of the University. Many new books have been purchased and placed on the shelves of our Libraries.

The science halls of the College of Liberal Arts are well equipped with apparatus strictly up-to-date.

The gymnasium, the three tennis courts, the basketball court, the inclosed athletic field, with its quarter-mile cinder path, and the bleachers with thirty-five hundred sittings, furnish ample facilities for physical training and outdoor sports.

## Women's Dormitory

Under the management of the Ladies' Auxiliary a dormitory is provided for young ladies at 3427 McClintock Avenue where wholesome board and cozy rooms may be obtained at reasonable rates.

# Men's Dormitory and Boarding Club

The Hodge Hall Boarding Club furnishes board for young men at very reasonable rates. Information concerning membership in this club can be obtained upon application.

Board and furnished rooms can be secured in private families at from three to seven dollars per week. Furnished rooms, accommodating two students, cost from four to twelve dollars per month.

Other expenses incident to college life vary with the habits and circumstances of the student. They are not of necessity so great as to be burdensome to persons in moderate circumstances.

The Young Men's Christian Association conducts a free rental bureau for the benefit of all students and has all available rooms in the vicinity of the University campus listed and on file. The Young Men's Christian Association and the Young Women's Christian Association also conduct an employment bureau for the purpose of aiding needy and worthy students who are desirous of earning a part of their expenses while in school. The general secretary of either association

will be glad to answer any requests for information addressed to them.

## Religious Privileges

The moral atmosphere surrounding the student is exceptionally good. The Young Men's Christian Association and the Young Women's Christian Association are active and effective in social and religious life.

In addition to the chapel services, courses of special addresses are delivered from time to time. These privileges constitute a good Christian atmosphere in which to lay the foundation of character. Students are expected to attend some church each Sabbath, and are advised to join some Sunday class for the study of the Bible.

The University Methodist Episcopal Church is located near the campus, and is one of the most prosperous churches in the city. The Baptists and Presbyterians also have churches in the near vicinity. These advantages, together with fine public school privileges, make the University section of the city a very desirable place of residence for families seeking educational opportunities.

## Ladies' Auxiliary

An organization under this name is composed of more than fifty of the ladies of the city especially interested in the University. In addition to the supervision of the women's dormitory, a cafeteria under their efficient management provides hot lunch or dinner at cost for students and faculties.

### Literary Societies

The Aristotelian Literary Society for men is the oldest of the societies connected with the College. It has a large and well furnished hall in which to hold its meetings.

The Comitia, also for men, is in a flourishing condition.

The Athena and Clionian Societies are for young women. They have finely furnished halls, and are doing excellent work.

## The Library

The Library is housed in the main building of the University. The Reference room contains the general reference books, and a carefully selected list of current periodicals. The stack room contains the circulating books. There are also two large study rooms, one on the main floor in the North Annex, the other on the second floor.

All officers, students and graduates of the University have free access to the Library and may draw books for home use. The shelves are open to the members of the faculty and students engaged in advance work upon recommendation of their major professor.

The Library contains over ten thousand volumes, exclusive of unbound pamphlets; also, what is known as the Dean Cochran Memorial Library of over 2000 volumes placed in the University by his son, George I. Cochran.

Each year books are added to meet the demands of the various departments.

The Library is open each day from 8 a.m. to 4:30 p. m.; Saturdays, 8:30 a.m. to 12 m.

All students have access to and make continual use of the Los Angeles Public Library of over 150,000 volumes.

#### The Museum

An extensive collection of specimens in mineralogy and geology has been accumulated during the past years, by donations and purchase. Professor Dickinson, the first curator, opened the museum and classified it, making many donations from his own excellent private collection.

A few years ago the trustees purchased from Dr. Stephen Bowers a large collection of geological, mineralogical and archaeological subjects.

The late Rev. C. R. Pattee, D.D., donated about five hundred species of West Coast shells, a valuable geological, paleontoligical, mineralogical and conchological collection.

The late Mrs. Mary Wright has bequeathed to the University a very valuable collection of geological specimens.

Physical and Electrical Engineering Laboratories

The departments of Physics and Electrical Engineering occupy nine rooms on the first floors of the main building and Science Hall. These have been planned and equipped exclusively for the departments and are suited for the purpose for which they are used.

The Laboratories include: (1) General Physical Laboratory, (2) Electrical Measurements Laboratory, (3) Photometer Room, (4) Physical Optics, (5) Dynamo and Motor Room, (6) Repair Shop, (7) Office and Private Laboratory, (8) Stock Room, (9) Preparatory Physics Laboratory, (10) Lecture Room. The equipment is furnished by the best American and European makers. It is of recent purchase, modern and best quality. The equipment in Mechanics includes a number of excellent precision pieces by Gaertner; in Heat, apparatus by Pye of Cambridge, Eng.; in Light, spectrometers, prisms, gratings, etc., by Gaertner and Wilson. In Electricity the equipment is especially complete and of high order. Special mention may be made of (1) Standard Resistances, Postoffice Boxes, Type H Galvanometers (four), Portable Galvanometers, Thomson Dynamometer, Standard Cell and Shunts made by Leeds and Northrup; (2) Potentiometer by Pve: (3) Standard of Self-induction, Sechometer, Kempe Discharged Key and Permeameter by Nalder & Co., England; (4) Variable Condenser, Tangent Galvanometers and Keys by Queen & Co.; (5) Indicating Meters, for both Alternating and Direct Currents, in which the equipment is unusually complete, including a large number of Ammeters, Voltmeters and Wattmeters of the well known Weston make; also, Whitney hot-wire, Wagner induction, Hoyt torsionhead, Aryton & Perry plunger type and others.

The dynamo room is equipped with a Fairbanks-Morse gas engine for driving the electric generators. These consist of a 7.5 Kw. General Electric Co. revolving field Alternator, a 7.5 Kw. Three Rivers compound wound D. C. 125-volt generator and a 7.5 Kw. Westinghouse double current generator. The G. E. alternator is provided with a special winding for various phase and voltage connections, and with three extra rotors so that it may also be run as an induction motor with squirrel cage rotor, with external resistance rotor, or with

internal resistance rotor. Controllers, rheostats and compensator are provided. The Westinghouse machine may be run as a 1, 2 or 3-phase alternator or as a 125-volt D. C. generator or as a Rotary Converter.

In addition to these machines there are also: Crocker-Wheeler 1.5 Kw. D. C. generator, Edison 1.5 Kw. D. C. generator, Westinghouse 800-watt D. C. generator, Westinghouse 1 and 5-horsepower induction motors, General Electric 1 and 3-horsepower induction motors, the latter with the phases wound in different colors and all the coils led to a terminal board. There are, also, transformers, water rheostats, arc lamps, switchboards, etc., in conjunction with the machines. Circuits run to the electrical measurements room and lecture room, and one of the motor-generator sets is arranged for operation in the lecture room for demonstration purposes. A stereopticon with slides showing modern electric installations is provided.

The Library contains a large number of reference books on many special subjects in Electrical Engineering and General Physics.

## The Chemistry Building

The department of Chemistry occupies the building in the southern portion of the campus. The laboratory for general chemistry will accommodate one hundred ten students; that for quantitative chemistry forty students; that for organic chemistry twenty-five students. The laboratories are thoroughly equipped with modern laboratory tables, water, gas, apparatus and chemicals: they contain a large number of hoods and all of the conveniences of a modern laboratory. The balance room is a separate room, well lighted and equipped with twelve fine analytical balances. The storeroom is accessible from the different working laboratories and is supplied with a large quantity of apparatus and chemicals of the best make. A special research laboratory accommodating twenty-five students is thoroughly equipped with storage batteries for electro-chemistry, also with combustion apparatus and special apparatus for determining molecular weight. Another laboratory is equipped for investigations

on oil and gas. The equipment consists of stills, hydrometers, viscometers, Atwater's bomb calorimeters for heat determination, Junker's patent gas calorimeters. Hempel's' gas apparatus, Elliot's sulphur apparatus and a thermo-electric pyrometer. There are also four additional research laboratories

## Assay and Metallurgical Laboratory

This laboratory occupies a large room in the new Chemistry Building. The equipment consists of rock crushers, ore grinders of several kinds, amalgamating fans, all driven by electricity. The furnaces are of the latest type, using gas for fuel. The equipment includes apparatus for concentration and amalgamation tests, as well as a complete cyanide and chlorination plant. Special facilities are afforded for the electrolytic reduction processes. The laboratory is modern in every detail.

#### The Biological Laboratories

The entire second floor of the new north wing of the main building is devoted to the biological laboratories and lecture room. The laboratories are so planned that each student has abundant light, 110 feet of desks face immediately to the north. Each student is supplied with two drawers and microscope locker, each with Craig combination locks.

The Zoological Laboratory, 34x35 feet, contains now forty-seven single desks and a large demonstration table 4x11 feet with drawers and cupboards on each side for supplies. The laboratory is provided with blackboard, glass cases for books, reagents and specimens; a sink, aquarium and drip for keeping live specimens. Each student is furnished a compound microscope, BA 2 or BB 2, dissecting instruments and necessary materials for dissection and study.

A Bausch & Lomb physician's type of microscope has been presented to the department by Mrs. Scherer in memory of her husband, the late Dr. Luther D. Scherer. The instrument is provided with a complete set of lenses and accessories as follows: Objectives, 1-12 inch oil immersion, 1/8 inch with

compensating collar, and ¾ inch. Two eye pieces, substage condenser, stage micrometer, eye-piece micrometer and other accessories, all in good condition.

The Botanical Laboratory is thirty by forty-five feet. It contains forty-four single desks with drawers, locker and Craig combination locks for each; a large demonstration table; cases for twenty thousand herbarium specimens, books and supplies; blackboards, sinks, aquarium and drip. A compound microscope, dissecting instruments and materials are furnished each student.

## The Laboratory for Bacteriology and Physiology is 29x46

feet, facing the north. It is supplied with autoclay, Arnold and hot air sterilizers, incubators, glassware and all other necessary equipment for work in bacteriology. There are thirty-one single desks in this laboratory, a large demonstration table, two hoods and cooling chamber, sink, tank, tables. cupboards and case for reagents and supplies. All the necessary materials, apparatus and instruments including BB8 Bausch and Lomb microscopes are furnished the student. For Physiology the laboratory is supplied with all the necessary reagents and apparatus such as microscope, haemocytometer, dissecting instruments, etc., for successful laboratory work. A complete set of the Harvard Physiological apparatus has been added. For Histology and Embryology the student is supplied with BB8 microscope and has the use of the Minot automatic rotary microtome, Bausch and Lomb's automatic laboratory microtome, and all reagents necessary to carry on successful work.

The research laboratory, 15x17 feet, adjoins the office of the department, which is also 15x17 feet. The equipment of these rooms is such as adapts them to advanced work along special lines. The best microscopes of German and American make are available, including Bausch and Lomb, CC8, Zeiss IIa, with achromatic and a set of apo-chromatic objectives with compensating eye pieces. Other microscopes of the Leitz and Spencer types, also imbedding baths, centrifuge, camera, numerous microscope accessories and instruments are provided.

The lecture room is 32x36 feet with raised seats. It has a seating capacity of about two hundred and is provided with skylight and fitted with screens for darkening to adapt it to the use of the electric projection apparatus and stereopticon which form part of the equipment. The lecture desk which is fitted with drawers and cupboards can be adjusted instantly for gas or water for demonstration purposes. This room, as well as all others, is well supplied with electric lights.

The wide halls have been provided with glass cases in which are placed a large collection of birds, mollusks and alcoholic specimens for demonstration and study. The collection of mollusks is very complete, representing over eighteen thousand specimens.

## Athletics and Physical Culture

The Faculty of the College of Liberal Arts, recognizing that physical culture is both hygienic and educative, desires to encourage every reasonable effort in the direction of physical development consistent with strong manhood and womanhood. On its hygienic side it should aid the body in all its functions, develop a symmetrical form, correct deformity as far as possible, and afford recreation. In its educative function it should afford the discipline necessary for self-control, both mental and moral.

There are two active tennis clubs with three well kept courts.

#### Gymnasium and Athletic Grounds

Athletic sports are encouraged for their value in developing the body, in furnishing a means of pleasant recreation, as well as a source of social and ethical culture, and in cultivating the spirt of co-operative enterprise.

The gymnasium has been fitted with appliances for the proper development of the body. The necessary apparatus of the newest and most approved designs has been provided. The director has made preparations for the training in the gymnasium of both the young men and young women, who will have separate lockers and baths and use the building at

different periods of the day. The students have all the advantages of the gymnasium, with baths, lockers and dressing room accommodations.

A complete equipment is provided for each form of exercise. Galleries will afford audience room for special gymnastic exercises when such are open to the public.

Each student, on entering the department, undergoes a thorough physical examination, in order that his physical condition may be known to the director, and suitable exercise prescribed. Various strength tests and measurements are given; the heart, lungs and eyes are examined, and the utmost caution used in the advice given regarding individual exercise. One examination during each semester is required, the latter demonstrating any improvement or change in the student's physical condition. Anthropometric cards and charts are platted for students when desired.

#### Athletic Contests

All athletic and team contests are under close supervision of the director and no student is permitted to compete in games or contests whose physical examination shows that he or she is unfit.

Any person who desires to enter athletic contests must attain a certain standard of scholarship before being permitted to participate.

#### Gymnastics for Women

Before entering upon this training every young woman is given a thorough physical examination by Dr. Elsa H. Horstmann, in order that only such exercises may be given as are suited to the student's individual needs. If owing to any physical inability to take the work with the regular classes it seems necessary to take special corrective work, private instruction may be arranged for.

The regular course includes gymnastics, athletics and physical culture. A combination of the Swedish and German system of gymnastics is used.

The gymnasium is well equipped with apparatus. All work must be done under the supervision of the director.

The Athletic grounds are adjacent to the gymnasium and participation in out-door sports is expected of all young women taking physical training. They may elect tennis, volley-ball, basket ball, or walking.

Students are required to provide themselves with a special suit for gymnasium exercises. The Director must be consulted in this matter, in order that there may be uniformity of costume.

#### SCHOLARSHIPS

The following scholarships have been founded in the College of Liberal Arts. Others contemplate the establishment of prizes and scholarships, and it is earnestly hoped that soon a goodly number can be offered. Friends of the College can greatly add to its attractiveness in this way.

# The Hugh Johnston Scholarship

This scholarship was founded by Mrs. Anna H. Johnston, of Pasadena, in memory of her deceased husband, and is for the benefit of needy students. Mrs. Johnston will name the incumbent when she desires. Otherwise this will be done by the authorities of the University.

#### The Spence Scholarship

This scholarship was founded by the Hon. E. F. Spence in his life time, and is devoted to the use of needy students in the San Diego district, upon the recommendation of the District Superintendent of that district.

## The A. C. Hazzard Scholarship

A thirty-year scholarship founded by Rev. A. C. Hazzard, of Whittier, for the benefit of students preparing for Christian work.

# The A. M. Peck Scholarship

Founded by A. M. Peck, of Compton.

## The Poplin Scholarship

Founded by F. L. Poplin, of Los Angeles. The incumbent to be named by the founder.

# The Ontario Scholarship

For the benefit of graduates of the Ontario High School.

## The Zana E. Stevens Scholarship

Founded by Rev. F. G. H. Stevens, September 16th, 1907, in memory of Zana E. Stevens, nee Terpenning, of the class of 1901. This scholarship is to be filled by a member of the J. O. C. Class of the First Methodist Episcopal Church of Santa Monica, of which Mrs. Stevens was the organizer and teacher. The incumbent is to be named by the founder when he so desires, otherwise by the District Superintendent of the Los Angeles District and the authorities of the University. In case no member of this J. O. C. Class is eligible, the incumbent shall be chosen from any J. O. C. members who apply for same. In case none such apply, the incumbent shall be chosen from any female students who apply.

## The A. M. Hough Scholarship

Founded by Mrs. Anna G. Hough May 7, 1908, by the payment of one thousand dollars. This scholarship is to be perpetual, and is to be used to aid some student each year in the College of Liberal Arts who is preparing to enter the ministry of the Methodist Episcopal Church. In case no such student should apply, the President of the University is authorized to use the scholarship to benefit any worthy student needing such help.

#### The George I. Cochran Scholarship

Founded by George I. Cochran; founder to name the student receiving the benefit.

# The Abbie Mills Scholarship.

Founded by Abbie Mills by the payment of \$1000. The scholarship is to be perpetuated, the President to name the student receiving the benefit.

#### PRIZES

#### The Lottie Lane Prize

This prize, established by Mrs. Charlotte A. Thompson as a memorial to a deceased daughter, is an elaborate gold medal, to be presented each year at Commencement to that member of the graduating class who shall have maintained the highest general average in scholarship throughout the whole college course. Students who have taken more than four academic years to complete the course or those who have received credit for work done elsewhere than in this College, are not eligible for this prize. This medal was awarded in 1910 to Grace A. Willett.

#### The Oratorical Prize

The Phi Alpha Fraternity gives an annual prize of twentyfive dollars for the best oration delivered in the local contest by an undergraduate.

The first prize was awarded in 1910 to Benj. D. Scott.

The University offers to its representative in the Intercollegiate Oratorical Contest, a semester scholarship in the junior or senior year, College of Liberal Arts (value \$40); and an additional semester scholarship in junior or senior year, if said representative wins first place in the Intercollegiate Contest.

The scholarship is not transferable.

## GIFTS TO THE UNIVERSITY

The Hough Fund. This is a fund of \$65,000 given by Rev. Asabel M. Hough, deceased, and his wife, Anna G. Hough, of Los Angeles. It is to be held by the University in perpetuity, and the income is to be used for current expenses of the College of Liberal Arts, or as the Board of Trustees may annually direct.

The Hazzard Professorship. Rev. A. C. Hazzard has given to the University, property value at \$30,000 for the endowment of a professorship in English Bible.

The Merryman Professorship. Mr. T. D. Merryman has given to the University property value at \$25,000 for the endowment of a professorship in Mathematics.

Hartupee Gift. This gift consists of \$22,500.

Carnegie Gift. This gift consists of \$25,000.

For further information address.

UNIVERSITY OF SOUTHERN CALIFORNIA,

Los Angeles, California.

# DEPARTMENTS OF INSTRUCTION BIOLOGY

Professor, Albert B. Ulrey (Animal Biology). Assistant Professor, Andrew C. Life (Plant Biology).

Charles S. Bentley, M.D. (Lecturer on Marine Conchology.)

Instructor in Zoology, Chas L. Parmenter.

Laboratory Assistants:

Percy S. Barnhart. Earl E. Burk. Joseph Monteleone.

Courses adapted to the needs of students who do not major in Biology but desire some knowledge of organic nature and training in scientific methods are: General Zoology or General Botany and Bionomics.

Major work: (a) Animal Biology, courses 1-6; General Biology, courses 2, 3 and 4; (b) Plant Biology, courses 1-6; General Biology, courses 2, 3 and 5.

Courses affording preparation for directors of Physical Education and Health and Development: Animal Biology, 1, 2, 5 and 6; General Biology, 1, 2 and 3; Anatomy, Physiology and Physical Diagnosis (courses given in the Medical College); courses in Education which are adapted to the student's needs.

The courses in General Zoology, Physiology, Bacteriology, General Botany and Bionomics are offered each year. Other courses given will be determined by the available time of the instructors and the needs of the students of the department.

Two or more assistants are selected each year from the advanced students of the department who maintain a high standard of scholarship and are otherwise qualified for the work.

# Animal Biology

#### LOWER DIVISION COURSES

- 1. General Zoology. Laboratory study of representative types of invertebrate and vertebrate animals from the simplest to the most complex. A series of lectures co-ordinating the laboratory work and dealing with the general problems of Biology. The course includes a study of animal structure, functions, relationships and adaptation to environment. The student receives instruction in the use of the microscope, dissecting apparatus, and is directed in the study of animals in their native environment. Ten hours laboratory work and lectures per week throughout the year. Four hours, both semesters. 2-3:50, Monday, Tuesday, Wednesday, Thursday.
- 2. Physiology. Lectures, laboratory work and recitations on the activities of living organisms. Special study of the physiology of the human body. Six hours per week, one semester. Prerequisites Course 1 or Plant Biology 1. Three hours, second semester. 9:55, Monday, Wednesday, Friday. Lectures, Friday, 1-3:50 Lab.
- 3. Systematic Zoology. The course deals with certain groups of vertebrates with special reference to morphology and relationships. Laboratory study, field work and lectures. Six hours per week, one semester. Prerequisite Course 1. Three hours, either semester.

#### UPPER DIVISION COURSES.

- 4. Histology. The microscopic anatomy of animal tissues. Methods of preparation of tissue with practice in fixing, sectioning, staining and mounting. Laboratory work, lectures and recitations, six hours per week, one semester. prerequisite Course 1. Three hours, either semester.
- 5. Embryology. The general course of development of one of the higher vertebrates. Special study of the early stages of development of the organs. Embryological methods and practice in serial sectioning. The lectures deal with the general problems of embryology. Six hours per week, one semester. Prerequisites Courses 1 and 4. Three hours, either semester
- 6. Anatomy of Vertebrates. Dissection of types of the higher vertebrates; quizes, recitations and lectures. The course is primarily for pre-medical students. Six hours per week are required in the laboratory, one semester, Prerequisite Course 1. Three hours, either semester.
- 7. Advanced Physiology. This course is given in the College of Medicine.
- 8. Special Zoology. Investigation of some topic of limited scope. This course is planned to meet the needs of each student prepared to pursue it. Six hours per week, throughout the year. Prerequisite Courses, 1, 2, 3, 4 and 5, or their equivalent. Three hours, both semesters.

## Plant Biology

#### LOWER DIVISION COURSES.

1. General Botany. The course comprises a study of typical plants representing the vegetable kingdom. The first semester as well as a part of the second is devoted to Thallophytes and Archegoniates; the remainder of the second semester to Spermatophytes. Laboratory study, field work and lectures. Ten hours per week throughout the year. Four hours, both semesters, 9:55-10:50, Monday, Tuesday, Wednesday and Thursday.

- 2. Field Botany and Taxonomy. A study of flowering plants (spermatophytes) in the local flora. The course deals with the relationship of plants; affinities indicated by their structure, and a brief consideration of pedigree-cultures. Six hours per week, one semester. Prerequisite General Botany. Three hours, either semester.
- 3. Ecology. The relation of plants to their environment and their structural adaptations. Lectures, field and laboratory work. Three hours, either semester.
- 4. Plant Physiology. Experimental work on the physiology of plants, lectures and supplementary reading. Eight hours per week, one semester. Prerequisite Course 1. Four hours, either semester.

#### UPPER DIVISION COURSES.

- 5. Plant Anatomy and Histology. The minute structure of the systems of tissues. Microscopical technique in preparing permanent mounts. Laboratory work and lectures. Six hours per week, one semester. Prerequisite Course 1. Three hours, either semester.
- 6. Morphology of Bryophytes and Pteridophytes. A critical morphological study of typical representatives of Bryophytes and Pteridophytes, their development from the germinating spore to the adult. Special attention is given to the relationships of the groups as indicated by their structure, and to the phases of alternation of generations illustrated by the types studied. Six hours per week, one semester. Prerequisite General Botany. Three hours, either semester.
- 7. Marine Algae. Special morphology, classification and relation to environment. Prerequisites Courses 1 and 5. Three hours, either or both semesters.

#### General Biology

#### LOWER DIVISION COURSES.

1. Hygiene and Sanitary Science. A course of lectures and laboratory demonstrations on (a) the improvement and

preservation of health, and (b) the applications of science in the home. Open to all students. Two hours, either semester.

2. Bacteriology. The course consists of a study in the laboratory and by means of lectures of the nature of the bacterial organism; its relation to disease, methods of cultivating and isolating; inoculation experiments, staining of sections, examination of water, etc. Six hours per week, one semester. Prerequisite Botany 1, or Zoology 1. Three hours, first semester. 9:55, Monday, Wednesday. Lectures Friday, 1-3:50 Laboratory.

#### UPPER DIVISION COURSES.

- 3. Bionomics. A course of lectures dealing with the general principles of Biology. The problems of inheritance, development and sex are considered from the cytological standpoint throughout the first semester. Variation, heredity, selection, regeneration and kindred topics are studied during the second semester. Two hours per week, throughout the year. Prerequisite General Zoology or General Botany. Two hours, both semesters. 8:55, Tuesday and Thursday.
- 4. Microscopical Technique. A course dealing with special methods of Microscopy. Laboratory work and lectures. Two hours, either semester.
- 5. Seminar. The advanced students and instructors of the department meet two hours per week for reports on special investigation and present-day problems of biology. One hour, both semesters.
- 6. Journal Club. Reports on the current literature of biology, one hour per week throughout the year.

# At the Venice Marine Station

(Primarily for Graduate Students)

7. Biological Survey. A study of the marine animals and plants of the region, including their habitat, classification, distribution and life-habits.

- **8.** Experimental Biology. The course consists of a study of some special problem of biology for which the student's training prepares him.
- 9. Research. A limited number of private laboratories are available for free use of investigators who are prepared to carry on such work. Investigation may be carried on throughout the year. Application for these privileges should be made to the director of the station.

#### CHEMISTRY

Professor, Laird J. Stabler.

Assistant Professor, Ethel W. Graves.

Laboratory Assistants:

J. George Davidson, Lorenzo A. Hampton, Henry N. Wade.

Courses 2, 2a, 3 and 3a are prerequisite to all other courses in Chemistry.

In all laboratory courses except Course 14 a deposit of thirteen dollars per semester for each course is required. Of this, five dollars per semester, less breakage, is returnable. In Course 14 a fee of ten dollars is charged, and, in addition, a deposit of ten to thirty dollars is required to cover cost of material consumed.

#### LOWER DIVISION COURSES

- 1. General Inorganic. A lecture and recitation course, covering the principles of Chemistry. Open only to students who do not present entrance credits in chemistry. Smith's Chemistry for Colleges. To be taken in connection with Course 1a. Three hours, first semester. 10:50, Monday, Wednesday, Friday.
- 1a. General Inorganic. A laboratory course in General Chemistry, including preparation of simple inorganic com-

pounds, and experiments illustrating general laws and properties of elements and common compounds. Smith's Laboratory Manual. Six periods a week in the laboratory. Two hours, first semester. 1:05-3:50, Wednesday, Thursday.

- 2. Qualitative Analysis. Metals. Lectures and recitations dealing with detection and identification of metals. Prerequisite, Matriculation Chemistry. Smith's Chemistry for Colleges. To be taken in connection with 2a. Three hours, second semester. 9:55, Monday, Wednesday, Friday.
- 2a. Qualitative Analysis. Metals. A laboratory course in Qualitative Analysis, covering detection and identification of metals and a completion of unknowns containing metals. Morgan's Qualitative Analysis. Six hours a week in the laboratory. Two hours, second semester. 1:05-3:50, Monday, Tuesday.
- 3. Qualitative Analysis. Nonmetals. A continuation of Course 2. A study of Qualitative Analysis, including nonmetals, interfering substances and insolubles. To be taken in connection with 3a. Three hours, either semester. 9:55, Monday, Wednesday, Friday.
- 3a. Qualitative Analysis. Nonmetals. A laboratory course covering identification of nonmetals, detection and removal of interfering substances, and a complete qualitative analysis of several minerals. Morgan's Qualitative Analysis. Six hours a week in the laboratory. Two hours, either semester. 1:05-3:50, Monday, Tuesday.
- 4. Quantitative Analysis. Laboratory practice in gravimetric and volumetric determinations, with occasional lectures and recitations. Talbot's Quantitative Chemical Analysis. Nine hours per week in the laboratory. Three hours, both semesters. Hours to be arranged.
- 5. Advanced Qualitative Analysis. A laboratory course involving difficult qualitative separations, and detection of some of the rare elements. Weekly lectures and discussions. Prescott and Johnson's Qualitative Analysis is recommended

for reference. Three hours, either semester. Hours to be arranged.

#### UPPER DIVISION AND GRADUATE COURSES.

- **6.** Inorganic Preparations. A laboratory course including preparation of inorganic compounds, with tests for purity and strength. Prerequisite, Course 4. Two hours, either semester. Hours to be arranged.
- 7. Organic Chemistry. Lectures and recitations on the chemistry of the carbon compounds. Remsen's Organic Chemistry. Two hourse, both semesters. 9:55, Tuesday, Thursday.
- 7a. Organic Preparations. A laboratory course in the preparation of typical carbon compounds. Open to students who have completed Courses 2, 2a, 3a, 5 and 7. Two hours, both semesters. Hours to be arranged.
- 8. Mineral Analysis. Gravimetric and volumetric analysis of representative minerals, ores and alloys. Prerequisite, Course 4. Four or five hours, either semester. Hours to be arranged.
- 9. Physical Chemical Measurements. A laboratory course in physical-chemical methods. Molecular and atomic weight determinations by vapor density, boiling-point and freezing-point methods. Determination of conductively of electrolytes, reaction velocity, isothermal and chemical equilibrium. Prerequisite Course 4, Physics and Calculus. Two hours, either semester. Hours to be arranged.
- 10. Quantitative Analysis of Agricultural Products. Systematic analysis of fertilizers, dairy products, etc. Prerequisite Course 4. Four or five hours, either semester. Hours to be arranged.
- 11. Medical Chemistry. A laboratory course, including urine analysis, toxicology and food analysis. Designed especially for students looking forward to medicine or pharmacy. Open to students who have completed or are taking Courses 4 and 7. Three hours, either semester. Hours to be arranged.

- 12. Food Analysis. A laboratory course in Chemistry of meat and meat products, edibles and fats, dairy products, cereal products, saccharine products, canned vegetables, cocoa, tea, coffee, spices, vinegar, flavoring extracts, fruits and fruit products, fermented and distilled liquors, baking powders, food preservatives and coloring matter. Open to students who have completed Courses 4 and 7. Two hours, either semester. Hours to be arranged.
- 13. Industrial Chemistry. A lecture course covering the chemistry involved in the manufacture of oils, soap, sugar, explosives and other commercial products. Lectures will be given by chemists from various manufacturing establishments. Prerequisite, Courses 2, 3 and 7. Two hours, second semester. Hours to be arranged.
- 14. Assaying. This course comprises silver and gold extraction by scorification and crucible methods; fire assay of copper, lead and tin, extraction of gold from ores by the amalgamation, the chlorination, the cyanide and the electrolytic process. Two hours, either semester. Hours to be arranged.
- 15. Seminar. Papers and discussion on assigned topics, with lectures on subjects of general chemical interest. Open to advanced students. One hour, both semesters. Hour to be arranged.

Major Work: Sixteen semester hours in addition to courses 2, 2a, 3, 3a.

## DRAWING

Professor, A. W. Nye.
Professor, C. W. Lawrence.
Assistant Professor, T. A. Teeter.
Assistant Professor, J. C. Gaylord.
Instructor, A. G. Tottenham.

## Elementary

1. Freehand Drawing. Drawing from casts and natural objects in charcoal and pencil. Light, shade and perpective. Out-door sketching. Six hours, first semester.

- 2. Mechanical Drawing. Solving of geometrical problems, construction of mathematical curves, lettering. Six hours, first semester.
- 3. Advanced Freehand Drawing. Head and Costumed Life drawing, Poster drawing. Six hours, second semester.
- 4. Advanced Mechanical. Projection, development and intersection. Lettering. Six hours, second semester.

#### Architectural

- 5. Elements of Practical Perspective. Six hours, first semester.
- 6. Shades, Shadows and Perspective. Treated from an artistic standpoint. Color and wash drawing. Six hours, second semester.

## Engineering

- 7. Machine Drawing. Drawing details, assemblies of machine parts from sketches made in the laboratories or from blue prints. Designing simple machines. Lectures and drafting. Two hours, first semester, 9:55 and 10:50, Tuesday and Thursday. An examination in orthographic projection will be given to all students entering this course. (Nye.)
- 8. Technic of Drawing. In this course are given the technical details of drafting in connection with steel construction, topographical mapping, electrical diagrams, curved shading etc. Two hours, second semester. 9:55 and 10:50, Tuesday, Thursday. (Nye.)
- 9. Descriptive Geometry and Stereotomy. Advanced study of the representation of lines, surfaces and solids, shades and shadows, from a mathematical standpoint, linear perspective and stereotomy. Four hours, throughout the year.
- 10. Machine Design. Advanced course in mechanical and electrical design, detailing, working drawings of complicated machine details, study of standard commercial machine parts, shop practice, strength of parts, use of tables, formulae,

slide rule, gearing, estimating, specifications, structural iron and steel. Five hours, second semester.

- 11. Graphical Statics. The graphical determination of stresses in engineering structures. See Civil Engineering 15. Four hours, first semester.
- 12. Structural Design. Complete designs for steel bridges, roofs and other structures. See Civil Engineering 18. Seven hours, throughout the year.
- 13. Electrical Design. Types of electrical machinery, calculations and details. See Electrical Engineering 8. Five hours, first semester.

#### ECONOMICS AND SOCIOLOGY

Professor, Rockwell D. Hunt Assistant Professor,

#### **ECONOMICS**

LOWER DIVISION COURSES.

1. Principles of Economics. A comprehensive introduction to economic study, based upon Ely's Outlines and supplemented by lectures, assigned readings, and frequent student exercises. The elements of economic life, the principles and problems of production, distribution and consumption, with particular reference to their application to American social conditions. Among special topics considered are exchange, money, banking, revenue, taxation, international trade, the relation between capital and labor. Three hours, both semesters. 9:55 Monday, Wednesday, Friday.

Note.—Economics 1 is recommended to students taking the six hours requirement (History or Economics) in this department. It is in general prerequisite to all other courses in Economics.

- 2. Public Finance. A study of budgetary science, the principles and practice of taxation, public expenditures, and financial administration. Much attention is given to federal, state, and local taxation in the United States. Three hours, second semester. 8:55 Monday, Wednesday, Friday.
- 3. Money and Banking. Origin and evolution of money, with special attention to the problems of metallic and paper money; history and theory of banking, with examination of leading systems and special problems. Three hours, first semester. 8:55 Monday, Wednesday, Friday.
- 4. Economic Geography. A survey of the history and present status of industry and commerce in the principal countries; natural advantages in the world market, and national policies in development of resources, with special attention to the United States. Two hours, first semester. 8:55, Tuesday, Thursday.
- 5. Transportation and Communication. The theory and history of transportation; development of the railroad, its organization, management and consolidations. Ocean and inland waterways. Problems of rebates, public regulation, etc. Postal service and express companies. Johnson's American Railway Transportation and his Ocean and Inland Water Transportation are used as guides. Two hours, second semester. 8:55, Tuesday, Thursday.

#### UPPER DIVISION AND GRADUATE COURSES

- 6. Labor Problems. The important labor problems of the day, with special reference to American conditions. Growth of labor organizations, strikes and lockouts, industrial arbitration, profit-sharing, woman and child labor, immigration, etc. Three hours, second semester. 2:00, Monday, Wednesday, Friday.
- 7. History of Economic Thought. Development of economic thought from classical antiquity, with discussion of the different schools of economists. Extensive readings from numerous writers. Two hours, first semester. 9:55, Tuesday, Thursday.

- 8. Recent Economic Thought. A comparative study of theories of leading economists of the present day, with special reference to the problems of the distribution of wealth. Two hours, second semester. 9:55, Tuesday, Thursday.
- 9. Municipal Problems. The rise and growth of the modern city. Economic, administrative and social problems presented. Regular work of the class is richly supplemented by an extensive series of special lectures by leading practical experts. Three hours, first semester. 2:00, Monday, Wednesday, Friday.

# Special Lectures in Municipal Problems

#### 1910-1911

Rev. Matt S. Hughes, LL.D.—"The Modern City."

J. M. Guinn-"From Spanish Pueblo to American City.

John R. Haynes, M.D.—"History of Los Angeles Charter." Mrs. Willoughby Rodman—"Activities in Behalf of Our Children."

Miss Cora Tatham—"Work of the Young Women's Christian Association.

Superintendent J. H. Francis—"Work and Ideals of the School Department."

William M. Bowen, Esq.—"The Future of Agricultural Park."

Joseph Scott, Esq.—"The Los Angeles Chamber of Commerce.

George I. Cochran, A.M.—"Civil Service and Efficiency."

Walter Mallard—"Problems in Assessment and Taxation."
J. M. Elliott—"The Banks and the Community."

A. P. Fleming-"The Los Angeles Free Harbor."

William Mulholland—"Owen's River and Our Future Water Supply."

Lewis R. Works, Esq.—"Proposed Amendments to the Los Angeles Charter."

Dr. Dana Bartlett-"Organized Philanthropy in Los Angeles."

Dr. Dana Bartlett-"Los Angeles, 1915."

William H. Day, D.D.—"Religious Activities in Los Angeles."

10.—Fiscal and Industrial History of America. A comprehensive survey of American economic development and of national legislation in the fields of currency, finance, and the tariff, studied in relation to the evolution of commerce and industry. In addition to the use of texts and extended readings, students will be directed to a limited number of documentary sources. Three hours, second semester. 10:50, Monday, Wednesday, Friday.

Seminar in Economics. The Seminar, which was first organized in 1910, is designed to meet the needs of the most advanced students of the department. For the present its membership will include, in addition to the Director and instructors, the graduate students and senior undergraduates majoring in Economics. During 1910-11 the two main lines of work followed were a first-hand study of the labor situation in Los Angeles, culminating in carefully prepared reports, and a critical examination of the writings of Richard T. Ely, touching certain selected topics, as the theory of value, taxation, socialism. In addition to the leading reports, attention is given to the reveiwing of recent books and periodical literature and to topics of contemporaneous interest. Two hours weekly, throughout the year. 2:55, Thursday.

## SOCIOLOGY

#### LOWER DIVISION COURSES.

1. Introduction to Sociology. Elements of social theory. The structure, development and activities of human society. A comprehensive study of the social process and social ends, with frequent application to concrete conditions. Three hours, first semester. 10:50, Monday, Wednesday, Friday.

Note.—Sociology 1 is prerequisite to other sociology courses, except by special permission. Major work in Economics and Sociology, thirty semester hours.

2. Social Problems. Studies in practical sociology, based on Carroll D. Wright's text, with lectures and reports. Problems of population, the family, the modern city, temper-

ance, crime, poverty, etc. Each student investigates some concrete local question and presents results. Two hours, first semester. 10:50, Tuesday, Thursday.

3. Charities and Corrections. Studies in social pathology. Poverty and philanthropy, the dependent classes, public and private administration of charities. The class visits charitable and reformatory institutions in Los Angeles and vicinity to study conditions and methods of social betterment. Two hours, second semester. 10:50, Tuesday, Thursday.

#### UPPER DIVISION AND GRADUATE COURSES.

- 4. Principles of Sociology. A fundamental course, presenting an analytical study of social life and the forces of its orderly development, intended to lay substantial foundations for more advanced work. The leading social institutions are studied, and students are required to use extensive illustrative materials based upon the sources. Good knowledge of history and some acquaintance with biology and psychology are desirable. Three hours, first semester. 1:55, Monday, Wednesday, Friday.
- 5. Social Theories. A comparative study of the writings of leading sociologists of the present day. Extensive library work and frequent student reports are among the requirements. Open only to advanced students. Three hours, second semester. 1:55, Monday, Wednesday, Friday.

#### **EDUCATION**

Professor, Thomas B. Stowell.
Professor, James H. Hoose.
Assistant Professor, Elizabeth Yoder.
C. Everett Beach, M.D.
Elsa H. Horstmann, M.D.

- 1 and 2. Foundational Psychology (see Philosophy). Six frours, two semesters.
- 3. Principles of Education (including General Method). A study of Psychological and Educational Principles which

underlie the work of teaching. It considers primarily the psychology of the acts of teaching; secondly, the nature of the subject-matter to be learned; thirdly, how the mind of the teacher adjusts the mind of the learner to the task set, and thereby constructs the art of teaching.

Among the topics considered are the following: Functional psychology; the problems of psycho-physics; the interdependence of the various forms of mental activity as applied to education; nervous plasticity; habit, neural and psychic; types of mind; personality and environment; attention and interest.

A limited number of psychological experiments illustrative of the matter under consideration is followed by discussions of their respective educative values. Lectures, discussions, collateral readings, theses. Text Book—Horne's "Psychological Principles of Education." Courses 1 and 2 a prerequisite. Open to upper division and to graduate students. Three hours, first semester. 8:00, Monday, Wednesday, Friday.

- **4. Principles of Education** (3 continued). Text Book—DeGarmo's Principles of Secondary Education." Three hours, second semester.
- 5. History of Education: Ancient and Medieval. Beginning with the earliest periods and extending through the period of the Reformation. A study of the development of educational ideals and systems with special reference to the agencies that have been operative in their evolution; the physical and the social conditions which change ideals. Lectures, collateral readings, theses. Monroe's "Text-Book in the History of Education." Open to upper division and to graduate students. Three hours, first semester. 9:55, Monday, Wednesday, Friday.
- 6. History of Education: Modern. From the Reformation to the present, with a critical study of educational classics, especially the contributions of Comenius, Locke, Rousseau, Basedow, Pestalozzi, Herbart, Froebel, Spencer and contemporary educators (5 continued). Three hours, second semester. 9:55, Monday, Wednesday, Friday.

- 7. Aesthetics (See Philosophy 8.). This course considers the psychology of Aesthetics; the principles controlling the expression of beauty and their application to the Fine Arts, including a brief history of the Arts with special reference to their importance and effectiveness as educating agencies. Lectures, readings, observations, reports. Text Book—Bascom's "Aesthetics." Two hours, first semester. 8:55, Tuesday, Thursday.
- 8. School Organization, Administration, Supervision and Management. A study of the problems of school supervision. It considers the problems of organization, and administration of public schools. Among the topics treated are the following: Federal and State control of education: county, town. city and rural systems; school buildings, site, architecture, sanitation, furniture, ventilation, heating, lighting; seating of pupils; playgrounds; the school, a social center; courses of study; examinations; grading and promotion; school discipline: public and private schools: sectarian education; the duties and the inter-relations of boards of education, superintendents, principals, teachers; the distinctive problems of each: a comparative study of our State systems and of National systems. Observations in the schools of Los Angeles. Lectures, discussions, reading, observations, reports. Text Book-Arnold's "School and Class Management." Open to upper division and to graduate students. Two hours, second semester, 8:55, Tuesday, Thursday,
- 9. Education of Defectives and Feeble-Minded. A historical and critical survey of the methods employed in the education of the blind; of the deaf and dumb; of the feeble-minded; of abnormal and backward children; of the ethically defective; of epileptics; care of neglected and dependent children; with observation in the various institutions of Los Angeles which are conducted for the special care and treatment of these unfortunates. This course is articulated with Sociology 2 q.v. Observations, reports, readings, discussions. Open to upper division and to graduate students. One hour, first semester. 10:50, Tuesday.

- 10. Philosophy of Education. An advanced course in educational theory. It investigates the nature of the psychic activities which make education possible and desirable; the essential nature of the educating process and its limitations; the actual development of this process as seen in the various civilizations; the relations of national institutions to educational ideals; the essential difference between ancient and modern education; the Hebraic conception and Imperialism as educative forces; the school essentially a social institution; the course of study an expression of the concept, "The Individual." Lectures, discussions, critical study of educational sources. Text Book—Rosenkranz's "Philosophy of Education." Prerequisite, Courses 1, 2, 3, 4, 5, 6. For graduate students. Three hours, first semester. 8:55, Monday, Wednesday, Friday.
- 11. Philosophy of Education (10 continued). Text Book—Horne's "Philosophy of Education." Three hours, second semester. 8:55, Monday, Wednesday, Friday.
- 12. Interpretation and Expression. Lectures on methods in the interpretation of literature; the psychology of expression; oral practice of selections from masterpieces; technique of voice.

Open to graduates who are candidates for the teacher's certificate. Time to be arranged. One hour.

13. Interpretation and Expression. Continuation of 12. One hour.

# Health and Development

14a. Anthropometry and Kinesiology. A laboratory course in two parts.

The first deals with the normal physical measurements of children of school age. A brief study of the muscles, bones and normal movements of the body.

The second part deals with abnormalities and defects of growth and development, as variation from standards established in part One; their effect upon the movements of the

body and their influence in modifying the activities of the

Special attention is given to the chest, spine and feet, with particular emphasis on postural defects and the results of these defects upon internal organs. Prerequisites, Animal Biology 1, 3; General Biology, 2. 3. Open to Seniors. Three hours.

14b. Hygiene and Sanitation (Continuation of 14a). A lecture course in personal Hygiene and School Sanitation, with practice in the application of First Aid and Bandaging. Personal Hygiene approaches from various view-points the fundamental laws of human health: the subject is presented in brief talks and is intended as a basis for instruction in this subject to be given to the various grades. It deals with Nutrition, Excretion, Rest, Exercise, Cleanliness and their relations to Disease.

Under School Sanitation, the hygiene standard of the school building, yard and environment, are discussed; individual seating according to size, adjustment of distance to sight, and hearing defect cases.

The various systems of ventilation, lighting and sewage now in use are studied with a view to utilizing each to its maximum efficiency. Open to Seniors. Three hours.

15a. Symptomatology. A practical laboratory course in Physical diagnosis with seminar. The signs and symptoms indicating defects of special organs with simple tests for their detection.

Defects of sight and hearing, abnormalities of the mouth, nose and throat. Cardiac defects, respiratory defects, abnormal conditions of the central nervous system and their causes, together with a brief study of the contagious and communicable diseases, are the main topics studied. Prerequisite 14a and b. For graduates. Three hours.

15b. Continuation of 15a. A correlation of the principles underlying the various courses with the duty and function of the teacher, the school physician, the family physician and

the home. This course deals in a general way with the factors concerned in securing and conserving human health. Heredity, pre-natal and post-natal environment and the influence of certain abnormal conditions and habits on Health, Growth and Development. For graduates. Three hours.

16. Practice in Teaching. The Preparatory School of the University, located on the University Campus, furnishes rare facilities for observation and for actual experience in handling classes and giving instruction to classes in Secondary Education. Five hours, one semester.

## **ENGLISH**

## A. Rhetoric

Professor, James Main Dixon.
Associate Professor, Odell Shepard.
Assistant Professor, Paul Spencer Wood.
Assistant Professor, Howard L. Lunt.
Lecturer in English Literature, Dr. Ezra Healy.
Lecturer in Greek Literature in English,
Festus Edward Owen.

- 1. English Composition. Systematic practice in composition. Texts: Woolley's "Handbook of English Composition" and Berkeley's "College Course in Composition from Models." Three hours, both semesters. (In five sections.) (Professors Shepard and Wood.)
- 2. Spelling and Punctuation. A course in spelling and punctuation, required of all students who fail to pass a special examination in these subjects. One hour, one semester.

No credit is given for this course, but it must be passed before credit is given for English A 1. (Professor Wood.)

**3. Short Story and Advanced Composition.** Advanced work in narrative and expository writing. Open to students who have obtained a high grade in English A 1. Two hours, second semester. 10:50, Tuesday, Thursday. (Professor Wood.)

- 4. The Rhetoric of Oratory. The Process of Argument and Current Fallacies. Preparation of orations and briefs for debate. Text: Shurter's "The Rhetoric of Oratory." Open to students who have taken A.3. Two hours, second semester. 1:05, Tuesday and Thursday. (Dr. Dixon.)
- 5. Versification. Text: Alden's "English Verse." One hour, second semester. (In connection with Seminar. 2:50, Wednesday. (Dr. Dixon.)

# B. Philology

- 1. Origin and Growth of the English Language. English as a European tongue, with the laws that have governed its development. The laws of English phonetics. Texts: Champney's "History of English;" Dumville's "The Science of Speech." Five hours, first semester. 10:50, Monday, Tuesday, Wednesday, Thursday, Friday. (Dr. Dixon.)
- 2. Beginner's Course in Early English. Texts: Bright's "Anglo-Saxon Reader," Wyatt's "Beowulf." Five hours, first semester. 9:55. (Professor Shepard.) (Both the above courses are required for an English major.)
- 3. Early English Prose. Texts: C. Alphonso Smith's "Old English Grammar," St. John's Gospel in West-Saxon. Two hours, first semester. 9:55, Tuesday, Thursday. (Dr. Dixon.)
- 4. Chaucer and the Fourteenth Century. Texts: Green-law's "Selections From Chaucer," Skeat's "Piers, the Plowman." The reading is supplemented by lectures on the life, language and literature of the period. Three hours, second semester. 8:55, Monday, Wednesday, Friday. (Professor Shepard.)
- 5. Northern Middle English and Modern Scottish. Texts: W. Hand Browne's "Early Scots Poetry," Dow's "Burns," Scott's "Old Mortality." Three hours, second semester. 10:50, Monday, Wednesday, Friday. (Dr. Dixon.)
- 6. The Laws of Phonetics. Phonetic systems. International language-codes. Seminar. First semester, 1911-12.

7. The Chaucerian Poets of the Fifteenth Century. James I; Henryson, Dunbar. Seminar for second semester, 1910-11.

## C. Literature

- 1. General Survey of English Literature. Prerequisite for all courses in English Literature. Students who have made a systematic study of the subject in high school may be excused from this course by special examination. Text: W. J. Long's "English Literature." Two hours, first semester. (Professor Wood.)
- 2. The Elizabethan Period, 1560-1660; exclusive of Shake-speare. Five hours, second semester. 10:50. (Professor Shepard.)
- 3. The Restoration and Classical Period, 1660-1760. Three hours, first semester. (Dr. E. A. Healy.)
- 4. The Period of Romanticism, 1760-1832. Lectures and assigned readings. Five hours, first semester. Professor Wood.)
- 5. The Victorian Period, 1832-1900. Three hours, first semester. 9:55, Monday, Wednesday, Friday. (Dr. Dixon.)
- 6. American Literature. Lectures and assigned readings. Text: Bronson's "History of American Literature." Three hours, first semester. (Professor Wood.)
- 7. Shakespeare. Reading of fifteen plays, supplemented by lectures on the theaters, stage customs, social conditions and dramatic ideals of Elizabethan London as they bore upon the life and works of Shakespeare. Text: The Cambridge Shakespeare. Five hours, first semester. 10:50. (Professor Shepard.)
- 8. Shakespeare and English History. (a) The Lancastrian Tetralogy—Richard II; 1 and 2 Henry IV; Henry V. Text: Gairdner's "Lancaster and York" in Epochs of English. Not given, 1911-12. Three hours, second semester, 1:05, Monday, Wednesday, Friday.

- (b) (Alternate with above.) The Yorkist Tetralogy; the three Henry VI plays; Richard III. (Dr. Dixon.)
- 9. The Age of Milton and Cromwell. Its theology, politics, and social aspects. "Paradise Lost" as a Puritan epic. Milton's Verse. Texts—The Cambridge Milton. Three hours, first semester. 1:05, Monday, Wednesday, Friday. (Dr. Dixon.)
- 10. Browning. Text—The Cambridge Complete Works of Browning. Two hours, second semester. 9:55, Tuesday, Thursday. (Professor Shepard.)
- 11. Tennyson. Chiefly "In Memoriam." Text—The Globe edition. (Alternate with 12; not given, 1911-12.) Three hours, second semester. 9:55, Monday, Wednesday, Friday. (Dr. Dixon.)
- 12. Matthew Arnold, Poet and Critic. Three hours, second semester. (Dr. Dixon.)
- 13. Comparative Study of the Drama. Not given, 1911-12. (Professor Shepard.)
- 14. History of the Novel. A study of the development of the European novel with special reference to its production in England. Lectures, assigned readings, and reports. Not given, 1911-12. (Professor Wood.)
- 15. Technique of the Modern Novel. Reading and discussion of one novel by each of the following: Scott, Dickens, Thackeray, Eliot, Meredith, Hardy, Dumas, Balzac, Tolstoy, Turgeneff. Two hours, second semester. (Professor Wood.)
- 16. History of Greek Literature from Homer to Theocritus. Lectures and recitations based on the work of the English translators of Greek masterpieces. Texts: Jebb, "Primer of Greek Literature;" Murray, "Ancient Greek Literature;" Symonds, "Greek Poets." Translations of Homer—Pope, Bryant, Chapman, Lang, Leaf, Myers; Plumptre's Sophocles and Aeschylus; Potter's Euripides; Jowett's Plato.

No knowledge of the Greek language is required. 8:55, Tuesday, Thursday. Both semesters. (Professor Owen.)

- 17. The Philosophy of Literature. Not given, 1911-12. (Professor Shepard.)
- 18.—Spenser and the Italian School of the Sixteenth Century. Seminar study for second semester, 1911-12.

## ENGLISH BIBLE

Professor John G. Hill

LOWER DIVISION COURSES.

- 1. The Pentateuch and Historical Books of the Old Testament. Hebrew origin, history, tradition, cosmogony, morals, laws, government, and religious philosophy from Abraham to Solomon will be mastered. The questions of date, author, purpose, plan, style of literary composition and ruling ideas of each book will be studied. Two hours, first semester. 1:05, Tuesday, Thursday.
- 2. The Prophetic and Kingly Books of the Old Testament. This course will survey the varied and swiftly changing periods of Hebrew and Jewish history from the close of the United Kingdom to the close of Old Testament times. The greatest stress, however, will be laid upon the study of the prophets; their unique place and power, their relation to state and Church, their distinctive messages and permanent contribution to the history of religion. Two hours, second semester. 1:05, Tuesday, Thursday.
- 3. The Apostolic Age of the New Testament. This course is a careful survey of the Apostolic Church of the first century, its origin, strange success, painful conflicts with Judaism, brutal persecutions by Paganism, its new life in the dying Empire; also a comparison of the religious ideas of Paul, Peter, James and John and their mode of inspiration. Two hours, first semester. 2:00, Tuesday, Thursday.
- 4. The Gospel History and Literature of the New Testament. A study of the life, teachings, work and significance

of Jesus Christ as portrayed in the Four Gospels and as seen against the historic background of modern scholarship. Special emphasis is laid upon the living authority of Jesus and the ruling ideas of the Sermon on the Mount in sharp contrast to Jewish and Pagan religious ideas. Two hours, second semester. 2:00, Tuesday, Thursday.

#### UPPER DIVISION COURSES.

- 5. Israel's Wisdom Literature. An advanced course in the wisdom books of Proverbs, Ecclesiastes, Job, etc., from the literary point of view. One hour, first semester. 10:50, Tuesday.
- 6. Israel's Poetic Literature. This course will deal with the great mass of poetic literature found in the Bible, comparing it with other ancient literature. One hour, second semester. 10:50, Tuesday.

Two University Extension Courses are offered for the convenience of Sunday school teachers and others wishing to pursue Bible study in absentia.

## FRENCH

Professor Edgar von Fingerlin

## LOWER DIVISION COURSES.

- 1.Elementary Course. Grammar, exercises in pronunciation, reading, translation and composition. Dumas's Historie de Napoleon or equivalent will be read in the second semester. Le Voyage de M. Perrichon. Five hours, both semesters. 8:55, Monday, Tuesday, Wednesday, Thursday and Friday. Course 1 is intended for students in the College who wish to begin the study of French.
- 2. Modern French Reading. Chateaubriand, Hugo, Balzac, Dumas. Syntax, Composition. Open to students who have credit for Course 1. Three hours, both semesters. 2:00, Monday, Wednesday and Friday.

## UPPER DIVISION COURSES.

- 3. Classical French. The Drama of the Seventeenth Century. Selections from Corneille, Racine, Moliere. Idiomatic French Composition. Two hours, first semester. Open to students who have completed Course 2.
- 4. History of French Literature in the seventeenth, eighteenth and nineteenth century. A text-book such as Doumic's Histoire de la Literature Français will be used. Also extracts from the seventeenth century literature. Beaumarchais, Le Barbier de Seville. To follow Course 3. Advanced French Composition. Two hours, second semester.
- 5. Teacher's Course. Study of sounds, voice, homonyms, synonyms, word-formation, methods of teaching French, and those niceties of the language in which, as long experience has taught, even advanced students are deficient. While primarily intended for teachers, the course is open also to those who have finished Course 4. Two hours, second semester. Tuesday and Thursday.
- 6. French Lyric Poetry in the Nineteenth Century. G. Walch, Anthologie de Poetes Francais Contemporaines. Canfield, Poems of Victor Hugo. Open to those who have completed Course 4. Two hours, second semester.
- 7. French Pronunciation. The elements of phonetics in their application to the pronunciation of French. Passy-Rambeau, Chrestomathie Phonetique. Two hours, both semesters. Hours to be arranged.

#### GRADUATE COURSES.

- 1. French Literature in Renaissance, based on Darmestetter and Hatzfeld's Le Seixieme Siecle en France, and accompanied by collateral readings and essays in French on works read. Two hours, both semesters.
- 2. French Literature of the Seventeenth Century. A study of the great writers and their principal works. Essays and reports in French on works read. Texts: Brunetiere Doumic, or Pellisier. Two hours, both semesters.

- 3. Old French Reading. Synopsis of Old French Grammar based on Dr. Nonnenmacher's Lehrbuch der Altfranzosichen Sprache. La Chanson de Roland. Bartseh. Chrestomatie de l'Ancien Francais. Two hours, second semester.
- 4. Historical French Grammar. 1, Phonology. A study of the phonetic laws which have controlled the evolution of popular Latin into French. Darmstetter's or Nyrop's Historical Grammar. All these courses will not be given the same year, but arranged according to circumstances. Admission to any of these courses presupposes an undergraduate study of modern French and for Courses 3 and 4; also of some Latin. In these last courses a reading knowledge of German is very desirable, though not absolutely necessary, for purposes of reference.

## **GEOLOGY**

Professor, Gilbert E. Bailey.

- 1. General Geology. A lecture and recitation course covering the fundamental principles of Geology. Chamberlain and Salisbury's College Geology. Two hours, both semesters.
- 2. Economic Geology. Especial attention is given to the resources of the Pacific Coast region. Ries' Economic Geology. Two hours, both semesters.
- 3. Mineralogy. A study of the properties, uses and methods of determination of the most important minerals. Laboratory, lectures and field work. Moses and Parsons Mineralogy, Crystallography, and Blowpipe Analysis. Dana's Mineralogy. Two hours, both semesters.

#### UPPER DIVISION COURSES.

4. General Geology. Lectures, laboratory and field work. Special attention is given to the geology of the Pacific Coast region. Chamberlain and Salisbury's advanced course in Geology; Haye's Handbook for Field Geologists; Spurr's Geology Applied to Mining. Two hours, each semester. Field work, Saturdays.

5. Physical and Commercial Geography. A lecture and recitation course. Gregory-Keller-Bishop's Physical and Commercial Geography. Two hours, each semester.

## **GERMAN**

Professor, Margaret Graham Borthwick.
Assistant Professor, Ruth W. Brown.
Instructor, Bertha J. Jacoby.

#### LOWER DIVISION COURSES.

1. Elementary German. Pronunciation, reading and grammar, with practice in speaking and writing German.

This course includes the essentials of German grammar, with various practical exercises in dictation, composition, translation at hearing, and oral and written reproduction.

During the second semester some interesting short stories and characteristic poems are studied. Five hours, both semesters. 8:55, Monday, Tuesday, Wednesday, Thursday, Friday.

Course 1 is intended for students who enter without German. It covers the ground of preparatory subject 10.

2. Modern German. Modern narrative and dramatic prose, selected poems, and one drama of Schiller or Lessing. Grammar continued, with written and oral exercises. Letter writing and composition once every week. Collateral reading. Three hours, both semesters. 8:00, Monday, Wednesday, Friday.

For students who have had Course 1, or two years of High School German.

3. Scientific and Journalistic German. Rapid reading of scientific prose, also leading articles in German newspapers and magazines. Oral exercises. Two hours, both semesters. 1:05, Tuesday, Thursday.

For students specializing in science. Open to those who have had Course 2, or its equivalent.

#### UPPER DIVISION COURSES.

4. Classical Writers. Dramas of Lessing, Goethe and Schiller. Lyrics and Ballads. Lectures and conversation on the life and works of each author studied. One written exercise each week. Three hours, both semesters. 2:00, Monday, Wednesday, Friday.

Open to students who have had Course 2, or its equivalent.

5. Teacher's Course. Review of grammar, with special emphasis on points necessary for teachers. Introduction to Vietor's system of phonetics, with exercises in reading phonetic texts. Practice in pronunciation and in reading aloud. Recitation of poems, and reading of dramas with assigned parts.

Written exercises in grammar and advanced composition. Two hours, both semesters. 2:00, Tuesday, Thursday.

Required of all students majoring in German. Open to those taking any course beyond 3.

- 6. Schiller. Chronological study of Schiller's life and works. Reading of one complete drama, probably Wallenstein, with selections from other dramas and the principal ballads. Collateral readings and practice in composition. Two hours, first semester. 1:05, Monday, Wednesday.
- 7. Goethe. Chronological study of Goethe's life and works. Readings from "Aus meinem Leben," and Goethe's lyrics and dramas. Collateral readings and practice in composition. Two hours, second semester. 1:05, Monday, Wednesday.
- 8. Nineteenth Century Literature. Representative dramas and novels from Grillparzer, Hauptmann, Freytag and Scheffel. Open to students who have had Course 4, or its equivalent. Three hours, first semester. Course 6, alternating with Course 8, will not be given in 1911-12.
- 9. Goethe's Faust. Interpretation and discussion of both parts, with short historical introduction and collateral reading of Marlowe's Faust and of the Puppenspiel. Three hours, second semester. 1:05, Monday, Wednesday, Friday. Course

7, alternating with Course 9, will not be given in 1911-12.

Major Work: Courses 1-9.

#### GRADUATE COURSES.

- 10. German Literature of the Nineteenth Century and its relation to the historical events and to the cultural and social development of the time. Both the history and the literature are studied, with much collateral reading and reports in German of the works read. Three hours, both semesters. Time to be arranged.
- 11. The History of the German Language. Texts: Behagel, die deutsche Sprache; Wilke, Wortkunde. Work is also done in German composition, according to the needs of the student. One hour, both semesters. Time to be arranged.

## GREEK.

Professor, Festus E. Owen. Instructor, Grace A. Willett.

## LOWER DIVISION COURSES.

- 1. Beginning Greek. Burgess & Bonner's Elementary Greek. Book 1 of Xenophon's Anabasis translated. Practice in sight reading from Book II. Pearson's Greek Prose Composition used in connection with the Anabasis. Five hours, both semesters. 10:50, Monday, Tuesday, Wednesday, Thursday, Friday.
- 2. Xenophon's Anabasis. Books II-IV translated. Thorough grammar drill. Daily practice in reading at sight. Pearson's Greek Prose Composition used daily in connection with the text. Five hours, first semester. 9:55, Monday, Tuesday, Wednesday, Thursday, Friday.

Homer's Iliad. Books I-IV read and translated, Books V-VI read at sight. Special attention given to Homeric forms, scansion, and mythology. Prose Composition and Grammar review. Five hours, second semester. 9:55, Monday, Tuesday, Wednesday, Thursday, Friday.

(Students planning to major in Greek, but who offer two years of Greek for entrance, are required to take Course 2, second semester, in addition to courses prescribed for major work.)

- 3. Herodotus. Books VII and VIII; Lucian. Selections for rapid reading. Three hours, first semester. 2:55, Tuesday, Wednesday, Thursday.
- 4. Plato. Apology and Crito with selections from the Phaedo.

Lectures on Greek Philosophy and Plato's ethics in relation to modern thought. Three hours, second semester. 2:55, Tuesday, Wednesday, Thursday.

#### UPPER DIVISION COURSES.

5. Xenophon's Memorabilia, Selections. Plato's Georgias and Protagoras.

A careful study is made through lectures and assigned readings of the history of Greek Philosophy up to Aristotle.

The aim of this course is to introduce the student to the study of Philosophy with reference to its history, its problems and its effect upon human life. Three hours, both semesters. 1:05, Monday, Wednesday, Friday. Omitted 1911-12.

# 6. Greek Tragedy.

- (a) Aeschylus-Prometheus.
- (b) Sophocles-Antigone.

A careful study of the development of the Greek Drama will be made through lectures and assigned readings. Special attention given to the evolution of religious ideas and to the ethical tendencies in the Dramatists. Three hours, first semester. 1:05, Monday, Wednesday, Friday.

7. Homer. Odyssey, four to eight books. Study of the whole period of epic poetry. Collateral reading from standard histories of Greek literature. Jebb's "Introduction to Homer" and Arnold "On the Translation of Homer. Lectures on Homeric religious, social and political customs. Three hours, second semester. 1:05, Monday, Wednesday, Friday.

- 8. Herodotus and Thucydides. Selections. Three hours, both semesters. Omitted 1911-12.
- 9. History of Greek Literature from Homer to Theocritus. This course is given primarily in the interest of those students who wish to come in touch with Greek Literature, yet cannot do so through the medium of the Greek language. All reading of Greek authors is from the best English prose and metrical translations available. These readings include Homer (entire), Selections from the Lyric poets, five plays, each, from Aeschylus, Sophocles and Euripides, two comedies of Aristophanes, selections from the Orators and Historians, Plato's Apology, Crito, Phaedo, Protagoras, Gorgias and selections from the Republic. Numerous other authors are presented through lectures. A wide range of collateral reading, with notes, synopses and essays is required covering the field of the development of religious, ethical, philosophical, social and political ideas. Open to all students. Two hours, both semesters. 8:55. Tuesday. Thursday. Six hours credit.

#### GRADUATE COURSES.

- (a) Homer. Iliad and Odyssey read entire; intensive study of Homeric dialect; Examination of various theories of authorship; Study of Homeric and pre-Homeric life in the light of excavations in Greece, Asia Minor and Crete; Estimation of translations of Homer in connection with Arnold, "On the Translation of Homer;" papers on assigned topics. Class meets three times per week. Hours to be arranged.
- (b) Prose Composition. Based on Selections from Xenophon, Plato, Lysias and Demosthenes, endeavoring to master their style, to increase the students' vocabulary and to secure an easy familiarity with the grammar and syntax of Attic Prose. Class meets once a week. Hours to be arranged.

Major Work: Courses 3, 4, 5, 6 and nine additional semester hours.

## HISTORY

Professor, T. C. Knoles.
Professor, R. D. Hunt.
Professor, J. M. Dixon.
Assistant Professor, Roy Malcom.

## LOWER DIVISION COURSES.

- 1. English History. With special reference to social and literary development. Text book, supplemented by lectures, reports, and collateral reading. Two hours, both semesters. 10:50, Tuesday, Thursday. (Dr. Malcom.)
- 2a. Fifteenth Century English History. The Wars of the Roses.
  - (a) The Lancastrian Tetralogy of Shakespeare; his Richard II, 1 and 2 Henry IV, Henry V.
  - (b) The Yorkist Tetralogy. 1, 2 and 3 Henry VI, Richard II.

Text: Gairdner's "Lancaster and York," in Epochs of Modern History. See English C8. Three hours, second semester, A and B alternating. A not given in 1911-12.

- 3. Seventeenth Century English History. The Age of Milton and Cromwell. See English C 9. Three hours, first semester. 1:05, Monday, Wednesday, Friday.
- 4. Greek History. A detailed study of the conditions of ancient Greek life, with special reference to the evolution of political and social institutions. Three hours, first semester. 8:55, Tuesday, Thursday; 2, Friday. (Professor Knoles.)
- 5. Roman History. A series of investigations into the field of the evolution of the city-state of Rome. Lectures, readings, and reports. Three hours, second semester. 8:55, Tuesday, Thursday; 2, Friday. (Professor Knoles.)
- 6. Mediaeval History. A general survey of the mediaeval period, with special reference to the development of the great institutions, both of church and state. Discussions on Mediaeval philosophic conceptions. Text book, Emerton's

- "Mediaeval Europe." Lectures, bibliography making, papers. Three hours, both semesters. 8:55, Monday, Wednesday, Friday. (Professor Knoles.)
- 7. French Revolution. Open to those students who have studied Course 5 or its equivalent. A series of studies in the field of French institutional life just preceding the outbreak of the revolution. Text book, Lowell, "The Eve of the French Revolution," collateral reading, reports on selected topics. 10:50, Monday, Wednesday, Friday. Three hours, first semester. (Professor Knoles.)

#### UPPER DIVISION AND GRADUATE COURSES.

- 8. Modern Continental Europe. A course based on Andrews' "Historical Development of Modern Europe." Lectures and collateral reading. Three hours, second semester. 10:50, Monday, Wednesday, Friday. (Professor Knoles.)
- 9. English Constitutional History. For advanced students, prerequisite, Course 1. An examination into the origins and the evolution of the English Constitution. Lectures, reports. Two hours, both semesters. 10:50, Tuesday, Thursday. (Professor Knoles.)
- 10. Colonial History of America. The sources of American life, steps in the unifying process. Lectures and investigations. Two hours, both semesters. 8, Tuesday, Thursday. (Dr. Malcom.)
- 11. Institutional and Constitutional History of the United States. Large use of the library, studies of cases, lectures, comparisons. Three hours, both semesters. 1:05, Monday, Wednesday, Friday. (Dr. Malcom.) Prerequisite, History IX.
- 12. The Reformation. A course open to advanced students and teachers. First semester. Three hours, to be arranged. (Professor Knoles.)
- 13a. Problems of the New Orient. Japan, its history and people. Text: Schwartz's In Togo's Country... Two hours, first semester.

- 13b. The Phillippines. History of the Islands; race problems; constitutional developments. Text: Barrows' "History of the Phillippines." Two hours, second semester. (Dr. Dixon.)
- 14. Pacific Slope History. Special lecture course, with special reference to California. Two hours throughout the year, to be arranged. (Dr. Hunt.)
- 15. American Government. Municipal, State and National. Lectures and research. Three hours, throughout the year. (Dr. Malcom.)

## **ITALIAN**

Professor, Edgar M. von Fingerlin.

#### LOWER DIVISION COURSES.

- 1. Grandgent's Italian Grammar. Bowen's First Italian Readings, Goldoni's II Vero Amico, Grandgent's Italian Composition. Three hours, both semesters. 10:50, Monday, Wednesday, Friday.
- 2. Manzoni's I Promessi Sposi. Silvio Pellico's Le Mie Prigioni and other modern writers. Composition. Two hours, both semesters. 1:05, Monday, Wednesday.

## UPPER DIVISION COURSES.

3. Dante, Tasso, Petraca. Advanced Composition. Lectures on Italian Literature. Two hours, both semesters. Hours to be arranged.

## LATIN

Professor, Roy Edwin Schulz. Associate Professor, Ruth W. Brown. Assistant Professor, Hugh C. Willett.

## LOWER DIVISION COURSES.

1. Cicero and Terence. Cicero's De Senectute and Terence's Andria. Careful interpretation of the text with prac-

tice in reading aloud with proper phrasing and emphasis without translation and in translation at hearing. Three hours, firts semester. 9:55, Monday, Wednesday, Friday.

- 2. Horace. The Odes and Epodes. Lectures on the Augustan Age and Horace's contemporaries. Metrical reading, style and subject matter are given special attention. Three hours, second semester. 9:55, Monday, Wednesday, Friday.
- 3. Latin Syntax. A complete review in lectures and exercises of Latin Syntax. The exercises are based on Cicero's De Senecture. The course is recommended to all registered for Course 1. Two hours, either semester. 9:55, Tuesday, Thursday.
- **4.** Latin Prose Composition. Special attention is given to sentence structure, word-formation, and synonyms. Two hours, second semester. 9:55, Tuesday, Thursday.
- 5. Latin Comedy. Terence and Plautus. Special attention is given to early forms, meter, etc. Lectures on the development of Roman Comedy, on the Roman theater, on the presentation of plays and on Roman Life. Three hours, first semester. 8:55, Monday, Wednesday, Friday.
- **6. Livy.** Selection from the extant books. Lectures on the history and literature of the period of foreign conquest. Three hours, second semester. 8:55, Monday, Wednesday, Friday.

#### UPPER DIVISION COURSES.

- 7. Cicero. Letters. Lectures on the history of the Republic from B. C. 133 with special reference to the contemporary events. Two hours, first semester. 8:00, Tuesday, Thursday.
- 8. Tacitus. Agricola and Germania, or selections from the Annals. Lectures on the history and literature of the early empire. Two hours, second semester. 8:00, Tuesday, Thursday.
- 9. Advanced Latin Prose Composition. Writing of essays and letters in Latin. Translation of passages from English

writers. Open only to students who have received a high grade in Course 4, or the equivalent. One hour, both semesters. 2:00, Monday.

- 10. History of Latin Literature. Lectures on Latin Literature from Livius Andronicus to Boethius, with the interpretation of selections from all prominent authors. The course does not require a knowledge of Latin, and is open to students of all departments. Major students in the department will be required to do outside reading from text. Two hours, both semesters. 8:55, Tuesday, Thursday.
- 11. Latin Poetry of the Republic. Selections from Lucretius, Catullus, Ovid, Propertius and Tibullus studied largely with reference to thought and artistic form. Two hours, first semester. 2:00, Wednesday, Friday.
- 12. Latin Poetry of the Empire. Selections from Seneca, Martial and Juvenal. Two hours, second semester. 2:00, Wednesday, Friday.
- 13. Teachers' Course. Lectures on the Pedagogical Value of Latin, the work of the four years in the secondary school, the place of Composition, Prosody, History, etc., in the study of Latin; visiting and reports from secondary schools in the vicinity of Los Angeles; practice in teaching in the preparatory school of the University. Prerequisite, Philosophy 1.

Open to Juniors and Seniors. Two hours, second semester. 2:00, Tuesday, Thursday.

Major Work: Thirty semester hours, including Courses 3, 4, 9 and 10.

#### GRADUATE COURSES.

14. Latin Seminar. In 1911-1912 the Seminar will be occupied with a critical study of Vergil's Aeneid, with special attention to sources.

## **MATHEMATICS**

Professor, Paul Arnold. Assistant Professor, Hugh C. Willett.

## LOWER DIVISION COURSES.

- 1. Theory of Algebra. A lecture and text book course in which emphasis is placed principally upon the theory and the development of algebra. This course includes a review of elementary algebra, special attention being given to proofs of fundamental laws and principles. Three hours, both semesters. 10:50, Monday, Wednesday, Friday.
- **2. Solid and Spherical Geometry.** The fundamental propositions of the Euclidean geometry of space. Three hours, first semester. 8:00, Tuesday, Wednesday, Thursday.
- 3. Trigonometry. Plane trigonometry and its applications, the trigonometry of the right spherical triangle, and logarithms. Three hours, second semester. 8:00, Monday, Wednesday, Friday.
- 4. Algebra. Mathematical induction, equivalent equations, surds and complex numbers, theory of quadratic equations, simultaneous quadratic and higher equations, ratio, proportion, variation, the progressions and other simple series, inequalities, permutations and combinations, the binomial theorem for any exponent, limits and infinite series, determinants, theory of equations. Two hours, both semesters. 8:55, Tuesday, Thursday (first semester). 8:00, Tuesday, Thursday (second semester).
- 5. Advanced Trigonometry. This course is planned particularly for engineering students, and includes a review of plane trigonometry, as well as a thorough study of the fundamental principles of spherical trigonometry and the application of its formulas to the solution of spherical figures. Prerequisite, Course 3, or entrance trigonometry. Two hours, first semester. 8:55, Wednesday, Friday.
- 6. Plane Analytic Geometry. The analytic geometry of the straight line, the circle, and the conic sections, including

a discussion of the general equation of the second degree, and some special examples in higher loci. Five hours, second semester. 8:55, Monday, Tuesday, Wednesday, Thursday, Friday.

- 7. Differential Calculus. Development of the fundamental principles and formulas, applications to various problems in geometry and analysis. Three hours, first semester. 9:55, Monday, Wednesday, Friday.
- 8. Integral Calculus. The general principles of the integral calculus are developed, and the usual applications made to centers of gravity, moments of inertia, and especially to geometry. Three hours, second semester. 9:55, Monday, Wednesday, Friday.
- 9. Advanced Analytic Geometry. A continuation of Course 6; and also a short course in Analytic Geometry of three dimensions. Three hours, first semester. Hours to be arranged.
- 10. Differential Equations. An elementary course for students who have taken Course 8. Three hours, second semester. Hours to be arranged.
- 11. Analytical Mechanics. The mathematical treatment of statics, kinematics and dynamics. Prerequisite, Course 7 and 8. Three hours, first semester; two hours, second semester. 10:50, Monday, Wednesday, Friday, first semester; Wednesday, Friday, second semester. (Professor Lawrence.)
- 12. Descriptive Astronomy. A general course, requiring only the mathematics of Courses 1-3. Open to students in the last two years of the college course. Two hours, both semesters. 9:55, Tuesday, Thursday. (Professor Lawrence.)

Major Work: Thirty semester hours.

## MUSIC

Professor, Walter Fisher Skeele.

Students who take harmony and theory, or advanced instrumental or vocal work in the College of Music may be allowed college credit for the same, but the credit shall in no case exceed fifteen semester hours, and will be given only upon the recommendation of the Dean of the College Music.

## **ORATORY**

Professor, Beulah Wright.
Associate Professor, Gertrude Comstock.
Associate Professor, Elizabeth Yoder.
Associate Professor, Leonard G. Nattkemper.

Students taking work in the College of Oratory may be allowed credit in the College of Liberal Arts, not to exceed fifteen semester hours, credits to be given only upon the recommendation of the Dean of the College of Oratory.

# 1. Vocal Expression.

- (a) Principles of expression, voice building and tone placing. Expression of the body. Interpretation of literature from the text. Two hours, either semester.
- (b) Advanced vocal training and bodily expression. Interpretation from modern authors. Kipling, Van Dyke, Stevenson, Maclaren, and others. Two hours, either semester.

# 2. Public Speaking.

- (a) Extemporaneous work. Preparation and delivery of short speeches such as talks on current public questions, toasts, discussions. Two hours, first semester.
- (b) Extemporaneous work. Preparation of briefs for debate, forensics, argumentations, lectures. Two hours, second semester.
- **3. Oratory.** A study of masterpieces of oratory. Text: Sears' History of Oratory. The preparation and delivery of one original oration. Two hours, either semester.
- 4. Bible and Hymn Reading. Vocal Expression of the Bible and Hymns, Voice Building. Text: Curry's Vocal and Literary Interpretation of the Bible. Two hours, either semester.

# 5. Vocal Interpretation.

Lyric Poems. Training of the Imagination. Studies in Tennyson, Burns, Browning, Wordsworth and others. Two hours, first semester.

- 6. Shakespeare. King Lear or Julius Ceasar, Midsummer Night's Dream, or Twelfth Night. Two hours, second semester.
  - 7. Interpretation and Expression. (See Education 12.)

(Tuition for the above courses is payable at the Office of the College of Oratory.) (See Tuition College of Oratory.)

· Provision is made for a special class in the principles of Expression, for those students who enter the college without the required Preparatory School work. This is an elementary course of two hours for one semester; no college credit will be allowed for it.

## PHILOSOPHY

Professor, James H. Hoose. Professor, John G. Hill. Professor, Thomas B. Stowell.

## LOWER DIVISION COURSES.

- 1. Psychology. The aim in this subject is to acquaint the student with what is valuable in the investigations in Mental Science. Text Books, lectures and original investigations. This course is the required work in Philosophy. Three hours, both semesters. 8:55, Monday, Wednesday, Friday.
- 2. Logic. The elements in this subject as given in Creighton's Logic, with practical exercises. Three hours, first semester. 1:05, Monday, Wednesday, Friday.
- 3. Ethics. Borden P. Bowne's Principles of Ethics, accompanied by lectures, discussions, library references and special inductive and constructive studies in the ethical teachings of Jesus, the great poets and philosophers and autobiographers, ancient and modern; current ethical problems of

the day are treated in the light of recent psychology and mental science. The last part of the semester is given to a detailed study of human duties, individual and social, civic and divine, in accord with the rapid moral advance in applied ethics. Prerequisite, Psychology. Two hours, first semester. 9:55, Tuesday and Thursday.

- 4. Theism and the Philosophy of Religion. The aim in this Course is to examine carefully the leading ultimate grounds offered as explanations of reality, and to set forth the theistic ground of a supreme, self-existent, personal Being as the only satisfactory explanation. A clear philosophy of Religion is sought by a sympathetic study of the light which recent science sheds upon the problems of nature, man and mind. Modern Naturalism in its suicidal metaphysical implications and its inferiority to explanation by Personal Idealism is treated. The texts used are Iverach and Bowne. Prerequisite, Psychology. Two hours, second semester. 9:55, Tuesday and Thursday.
- 5 The Evidences and Philosophy of Christianity. The various evidences for the truth of Christianity are canvassed. It is shown how the completion of the moral and religious process in man demands Jesus Christ; and how Christianity is the key to life's philosophy, answering the question: "How can we best explain the mysteries of life?" The many apologetic questions troubling the probing student ancient and modern difficulties concerning Christianity are vigorously considered. The text book work is supplemented by frequent lectures and library work. Two hours, throughout the year. 9:55, Wednesday and Friday.

#### UPPER DIVISION AND GRADUATE COURSES.

- **6. Metaphysics.** This is an investigation into the determination of Being. For Seniors. Two hours, second semester. 10:50, Wednesday and Friday.
- 7. Aesthetics. A study of Beauty and its influences upon the Feelings, the Intellect, and the Will. Two hours, first semester. 8:55, Tuesday and Thursday.

8. History of Philosophy. Weber's History of Philosophy, covering Ancient and Modern Philosophy. Three hours, both semesters. 8:00, Monday, Wednesday, Friday.

#### GRADUATE COURSES.

- 9. Philosophy of Civilization. A course that investigates the Forces and Forms which have built up civilization. The study touches Philosophy of History.
- 10. Oriental Philosophy. An inquiry into the Forms of Living that have characterized Oriental Institutions.
  - 11. Philosophy of Kant. Select portions of Kant.
  - 12. Philosophy of Hegel. Select parts of his Philosophy.
- 13. Philosophy of Governments. An inquiry into the forms which sovereign power has assumed in the process of historical governments. The study touches Philosophy of History.

## POLITICAL SCIENCE

Professor, T. C. Knoles. Assistant Professor, Roy Malcom.

#### UPPER DIVISION COURSES.

- 1. Elements of Political Science. Historic origin of political science; theories of the state; nature of sovereignty; the structure and province of government. With lectures, readings and student reports. 8:55, Tuesday, Thursday, throughout the year. (Dr. Malcom.)
- 2. International Law. The nature, sources and principles of international law, the influence of Christian civilization upon rules and the contribution of the United States to its development. Three hours, throughout the year. Prerequisite, Political Science 1. Hours to be arranged. (Dr. Malcom.)

3. Parties and Governments in Continental Europe. A series of studies in the field of the comparison of the various methods of government in actual practice in the various states of continental Europe. Text book, Lowell, "Parties and Governments in Continental Europe." The text book is supplemented by a full reading course, and by many reports upon detailed topics. Three hours, second semester. (Prof. Knoles.) Hours to be arranged.

## PHYSICAL EDUCATION

Dean Cromwell, Director of Men's Athletics.

John S. Robson, Director of Men's Gymnasium.

Edna Cocks, Director of the Women's Gymnasium.

- 1. Systematic class work in gymnastics for men. The work consists of vigorous drill with dumb-bells, Indian clubs and wands, besides progressive graded work on the various pieces of gymnastic apparatus. Required of all first-year students. Four hours, both semesters. (Robson.)
- 2. An advanced course for men combining light and heavy gymnastics. Open to those who have completed Course 1. Four hours, both semesters. (Robson.)
- 2. An advanced course for men combining light and heavy gymnastics. Open to those who have completed Course 1. Four hours, both semesters. (Robson.)
- 3. Outdoor sports and light gymnastics for women; tennis, basket ball, volley ball, light work on the ladies' athletic field; recreative games and walking. Two hours, both semesters. (Miss Cocks.)
- **4.** Systematic class work in gymnastics for women. The work consists of drill with dumb-bells, Indian clubs, wands and rhythmical exercises for grace and harmony of movement. Two hours, both classes. (Miss Cocks.) Women's gymnasium classes meet Tuesday and Thursday at 9:55, 10:50 and 1:05. Women's tennis classes meet Monday and Wednesday at 8:00, 8:55, 9:55, 10:50, 1:05 and 2:00. Basket ball

class for women, Monday and Wednesday at 3:50. Walking Club meets on Tuesday and Thursday, 3:50. The first Tuesday in each month the plunge is reserved at Bimini Baths for all gymnasium girls.

Men's classes meet Monday, Tuesday, Wednesday, Thursday, at 2:00, 2:55 and 3:50.

Note.—Four semester hours in Physical Education is the required and also the maximum number for an A.B. degree.

## **PHYSICS**

Professor, Arthur W. Nye.
Associate Professor, J. C. Gaylord.
Laboratory Assistant, L. N. McClellan.
Laboratory Assistant, W. I. Gholz.

## LOWER DIVISION COURSES.

- 1a. General Physics. Electricity. Lectures 10:50, Monday, Wednesday, Friday. First Semester.
- **1b. General Physics. Heat.** Lectures, 8:00, Tuesday, Thursday. First semester.
- 2a. General Physics. Mechanics. Lectures, 10:50, Monday, Wednesday, Friday. Second semester.
- 2b. General Physics. Light. Lectures, 8:00, Tuesday, Thursday. Second semester.

These courses are open to all who have completed preparatory physics and trigonometry. The instruction is given by lectures, study of a text and laboratory work. The text used in each of the courses is Watson's Physics. In addition to the class hours noted above, three hours will be spent in the laboratory each week.

3. Mechanics. An advanced laboratory course continuing Course 1 may be taken concurrently with it. Experiments are made along such lines as moment of inertia, uniformly

accelerated motion, modulus of rigidity, force of gravity, etc. Four periods of laboratory work per week, with occasional lectures. Two hours, either semester. Hours to be arranged. (Nye.)

- 4. Shop Work. Instruction in the use of wood and metal working tools and machinery, including cutting, filing, drilling, tapping, polishing, screw cutting and elementary lathe work. Two or four periods in laboratory, one or two hours, either semester. Hours to be arranged.
- 5. Applied Electricity. A course in the principles and applications of electricity. Prerequisite, Physics 1. Two hours, second semester. 9:55, Tuesday, Thursday. (Gaylord.)

#### UPPER DIVISION COURSES.

- 6. Electrical Measurements. A laboratory course in which the theory and methods of exact electrical determinations are taken up, including the determination of resistance by various methods, galvanometer constants, measurement of current and electromotive force, insulation tests, hysteresis and permeability tests, calibration of instruments, use of condensers, measurement of induction, etc. Six periods per week. Two hours, first semester. 1:05-3:50, Tuesday, Wednesday. (Gaylord.)
- 7. Advanced Heat. A laboratory course consisting of work of the nature set forth in Millikan's "Mechanics, Molecular Physics, and Heat." Four periods in the laboratory with occasional lectures. Hours to be arranged. Two hours, either semester. (Nye.)
- **8.** Advanced Light. A laboratory course involving considerable work with the spectroscope and photometer. Hours and credits to be arranged. (Nye.)
- 9. Mechanism. Mechanics of link motions, cams, quick-return motions, etc. Belts and rope drive. Graphical solutions of mechanical movements and forces. Gearing. Two hours, first semester. 8:00, Tuesday, Thursday. (Gaylord.)

# SPANISH

Professor, Katherine T. Forrester.
Assistant, Ester Huet y Ferrat.

## LOWER DIVISION COURSES.

1. Elementary Spanish. During the first semester special stress is laid on foundation work. A thorough drill is given in pronunciation, reading and writing. Conversation is given from the beginning. Grammatical forms, especially regular verbs, are learned.

During the second semester besides this, short stories by prominent Spanish authors are read and translated. Five hours, both semesters. 8:55, Monday, Tuesday, Wednesday, Thursday, Friday. (2 Divisions.) 1:05, Monday, Tuesday, Wednesday, Thursday, Friday.

- 2. Advanced Spanish. Prose Composition on practical subjects is given, using Ramsey's Grammar as a guide. Short stories are read and discussed in class. Letters and original compositions are given from time to time. Collateral reading and reviews in Spanish of novels and drama. Three hours, first semester. 9:55, Monday, Wednesday, Friday.
- 3. Advanced Reading and Composition. Reading from Gil Blas and Don Quixote with a view to familiarizing the student with typical Spanish characteristics in literature. Outside reading of short novels. Reviews written in Spanish. Continuation of Grammar in connection with advanced evercises in Composition. Three hours, second semester. 9:55, Monday, Wednesday, Friday.
- 4. Spanish Conversation. Based on text book and articles taken from Spanish newspaper. Two hours, both semesters. 9:55, Tuesday, Thursday.
- 5. Commercial Spanish. Business letters, stenography and typewriting in Spanish. Two hours, throughout the year. 9:55, Tuesday, Thursday.
- 6. Modern Novels and Drama. The work of important novelists, such as Alarcón, Valdes, Pardo, Bazán, Valera,

#### UPPER DIVISION COURSES.

Galdós, are read and reviewed. Conversation based on stories, read to the class. Three hours, first semester. 10:50, Monday, Wednesday, Friday.

- 7. Contemporary Novels, Drama and Poetry. A great deal of reading is done both in the class and as collateral work. The Spanish viewpoint is brought out and the life of the people studied through their literature. Discussions are carried on in Spanish. Three hours, second semester. 10:50, Monday, Wednesday, Friday.
- 8. Classical Spanish. Reading from Cervantes, Lope de Vega and Calderon. Picaresque novels and plays of Capa y Espada taken up. Short lectures given in Spanish on early periods of Spanish literature. Two hours, each semester. 10:50, Tuesday and Thursday.
- 9. Lectures on Later Periods of Spanish Literature. Reference reading in Fitz Maurice-Kelly and Tichnor. Forces which led to development in certain directions are pointed out. Much collateral reading is done. Two hours, second semester. 10:50, Tuesday and Thursday.

## CIVIL ENGINEERING

Professor, Charles W. Lawrence.
Assistant Professor, Thomas A. H. Teeter.
Field Work Assistant, C. W. Cook.
Field Work Assistant, W. A. Hall.
Field Work Assistant, K. O. Volk.

The great industrial development of recent years in every part of the United States has created a large demand for trained Civil Engineers. The course in Civil Engineering has been made broad in order to meet this demand, by providing a sufficient foundation for the wide range of practice now included under Civil Engineering.

Very few college students know in what part of this wide field their life work will lie. Because of this, and the great

difficulty of mastering fundamentals during the stress of professional work, it has seemed best to provide a broad university preparation and to defer specialization to the period of active employment.

The course is designed to give a practical as well as theoretical training. Nearly as much time is spent in the drawing room, laboratory, and field, as in the lecture room.

By consulting the schedule following it will be seen that considerable time is devoted to Mathematics, English, Modern Languages, and Sciences. Of the more technical work, the Field Engineering is given very full treatment in lecture room, office and field.

In the third year Theoretical Mechanics is thoroughly developed and forms the basis for the designing and construction which occupies the remainder of the course. The importance of correct methods of thought and practice is constantly inculcated.

A very large amount of important engineering work is continually going on in the vicinity of Los Angeles. The proximity of harbors, mines, irrigation and water-supply projects, several trans-continental railroad terminals, extensive electric power plants and railway systems, offer a diversity of excellent examples of engineering construction. Students in this Department, accompanied by Instructors, are required to inspect much of this work, and to present written reports on what they have seen.

# Required Course in Civil Engineering FIRST YEAR First Semester

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# Second Semester

become beinester		
	Lab.	Class
	Hours.	Hours.
Math., 6—Analytical Geom		5
Chemistry, 3		3
Chemistry, 3a	6	
Civil Engr., 1		2
Civil Engr., 2		
Engr. Drawing, 2 English, A 1		3
SECOND YEAR		
First Semester		
Math., 8—Differential Calculus		3
Geology, 3—Mineralogy	****	2
Eng. Drawing, 3—Descrip. Geom		1
Civil Engr., 13—Materials		3
Physics, 1—Elec. and Heat		3
French or Spanish		5
Second Semester		
Second Semester		
Math., 9—Int. Calculus		3
		3
Math., 9—Int. Calculus	2	3  2
Math., 9—Int. Calculus	2	
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3	2	2
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv.	2 3 3	2
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv. Engr. Drawing, 3 Descrip. Geom. Physics, 2—Mech. and Light	2 3 3	2 1 1
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv. Engr. Drawing, 3 Descrip. Geom. Physics, 2—Mech. and Light. French or Spanish	2 3 3	2 · 1 1 3
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv. Engr. Drawing, 3 Descrip. Geom. Physics, 2—Mech. and Light	2 3 3	2 · 1 1 3
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv. Engr. Drawing, 3 Descrip. Geom. Physics, 2—Mech. and Light. French or Spanish	2 3 3	2 · 1 1 3
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv. Engr. Drawing, 3 Descrip. Geom. Physics, 2—Mech. and Light. French or Spanish  THIRD YEAR First Semester Civil Engr., 7—Anal. Mech.	3 3	2 · 1 1 3
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv. Engr. Drawing, 3 Descrip. Geom. Physics, 2—Mech. and Light. French or Spanish  THIRD YEAR First Semester Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Materials.	3 3 3	2 1 1 3 5
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv. Engr. Drawing, 3 Descrip. Geom. Physics, 2—Mech. and Light. French or Spanish  THIRD YEAR First Semester Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Materials. Civil Engr., 15—Graph. Statics	2 3 3 3 3	2 1 1 3 5 5
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv. Engr. Drawing, 3 Descrip. Geom. Physics, 2—Mech. and Light. French or Spanish  THIRD YEAR First Semester Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Materials.	2 3 3 3 3	2 1 1 3 5
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv. Engr. Drawing, 3 Descrip. Geom. Physics, 2—Mech. and Light. French or Spanish  THIRD YEAR First Semester Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Materials. Civil Engr., 15—Graph. Statics	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 1 1 3 5
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv. Engr. Drawing, 3 Descrip. Geom. Physics, 2—Mech. and Light French or Spanish  THIRD YEAR First Semester Civil Engr., 7—Anal. Mech Civil Engr., 8—Mech. of Materials Civil Engr., 15—Graph. Statics Civil Engr., 4—R. R. Engr. Theory	2 3 3 3 3 3 6	2 1 1 3 5
Math., 9—Int. Calculus Physics, 4—Shop Geology, 3 Civil Engr., 3—Higher Surv. Engr. Drawing, 3 Descrip. Geom. Physics, 2—Mech. and Light French or Spanish  THIRD YEAR First Semester Civil Engr., 7—Anal. Mech Civil Engr., 8—Mech. of Materials Civil Engr., 15—Graph. Statics Civil Engr., 4—R. R. Engr. Theory Civil Engr., 5—R. R. Engineering Practice	3 3 3 3 6 6	2 1 1 3 5

## Second Semester

Second Semester			
Civil Engr., 7		2	
Civil Engr., 8		3	
Civil Engr., 16—Stresses		3 .	
Elec. Engr., 5—Steam Engr.		2	
Civil Eng., 9—Hydraulics		3	
Civil Engr., 6—R. R. Economics	3	2	
Civil Eng., 18—Struct. Design	6		
FOURTH YEAR			
First Semester			
Civil Engr., 18—Struct. Design	. 6	1	
Civil Engr., 15—Foundations		2	
Geology, 1		2	
Math., 10—Astronomy		2	
Civil Engr., 17—Engr. Lab.			
Civil Engr., 11—Water Supply		3	
Civil Engr., 12—Sanitary Engr.		2	
Civil Engr., 10-Irrigation Engineering		1	
Civil Engr., 23—Thesis	3		
Second Semester.			
Civil Engr., 18	6	1	
Civil Engr., 20—Tunneling, Mining		1	
Geology, 1		2	
Math., 10		2	
Civil Engr., 21—Reinforced Concrete	3	2	
Civil Engr., 22—Contracts and Specifications		2	
Civil Engr., 19—Highway Engr.		2	

# COURSES IN CIVIL ENGINEERING

Civil Engr., 23—Thesis

1. Surveying. Recitations and lectures on the theory and practice of plane surveying. The course includes the use and care of instruments; methods of procedure and of keeping notes for land, city and mining surveys; instruction in

computation and platting of field notes. Prerequisite, the completion of a course in plane trigonometry. Two hours throughout the year. 10:50, Tuesday and Thursday.

- 2. Surveying Field Work. The practical adjustment of surveying instruments; the proper method of keeping clear field notes, and the working of field problems with chain, tape, level, plane table, transit, compass, etc. The work in the drawing room consists of platting the field notes and making profiles and maps. Six periods, throughout the year. Course 1 to be taken concurrently. 1:05-3.50, Wednesday, Thursday, Friday.
- 3. Higher Surveying. Topographical surveys with plane table and stadia, city surveys, mine surveys, measurement of base lines, determination of meridian and latitude. Three hours field work and one lecture period per week. Prerequisites, Courses 1 and 2.
- 4. Railroad Surveying. A course including the theory of curves, switches and sidings; the making of reconnoissances, and preliminary and location surveys; the computation of earthwork and determination of structures, and making final estimates of cost. Two hours, first semester. 9:55, Tuesday, Thursday. Preriquisites, Courses 1 and 2.
- 5. Railroad Surveying Field and Office Work. Practice in laying out curves, and making complete surveys for a short line of railway and doing the office work. Eight periods, first semester. 1:05-4:30, Monday, Tuesday.

Course 5 must be taken concurrently.

- 6. Railroad Engineering. The fundamental principles of economical location, construction and betterment surveys. A discussion of yard and terminal design, the study of the permanent right of way in regard to its relation to maintenance and operation. Prerequisite, Course 4. Two hours, second semester. 9:55, Tuesday and Thursday.
- 7. Analytical Mechanics. The mathematical treatment of statics, kinematics and dynamics, including determination of

center of gravity, moment of inertia, centrifugal force, etc. Three hours, first semester; two hours, second semester. Prerequisite, Mathematics 8 and 9. 10:50, Monday, Wednesday, Friday, first semester; Wednesday, Friday, second semester.

- 8. Mechanics of Materials. A mathematical course in resistance and elasticity of materials, stresses and strains, shearing, flexure, beams, columns, shafts. Two hours, first semester; three hours, second semester. Course 7 must be taken concurrently. 10:50, Thursday, Friday, first semester; Monday, Tuesday, Thursday, second semester.
- 9. Hydraulics. Hydraulic pressure, strength of pipes, flow of liquids through pipes and orifices and over weirs, losses of head, flow of water in open channels, dams of masonry and earth, hydraulic motors and machinery. Three hours, second semester. 8:55, Monday, Wednesday, Friday. Prerequisite, Course 7.
- 10. Irrigation Engineering. Diversion, conveyance and application of water for irrigation. Design of reservoirs, dams, and diversion works. One hour, first semester. Prerequisite, Course 9.
- 11. Water Supply. Determination of quantity and quality of supply, water purification, and conservation, design of a system. Three hours, first semester. Prerequisite, Course 9.
- 12. Sanitary Engineering. Drainage of buildings, treatment and disposal of sewage, sewer systems for cities. Two hours, first semester. Prerequisite, Course 9.
- 13. Materials of Construction. A study of the manufacture and properties of stones, cements, concretes, timber, iron, steel, etc., with special attention to determination of safe working stresses. Three hours, first semester. 8:00, Monday, Wednesday, Friday.
- 14. Foundations. The foundation of bridges and buildings. The construction of coffer dams, piers, caissons, ma-

sonry arches, and retaining walls. Two hours, first semester. Prerequisite, Course 8.

- 15. Graphical Statics. The graphical determination of the stresses in engineering structures. Three hours, first semester. 9:55, Monday; 1:05-3:50, Thursday. Course 7 must be taken concurrently.
- 16. Stresses in Framed Structures and Arches. The analytical and graphical methods applied to determining stresses in roof and bridge trusses, and mason arches. Three hours, second semester. 9:55, Monday, Wednesday, Friday. Prerequisite, Course 15.
- 17. Engineering Laboratory. Testing of engineering materials. Three laboratory hours, first semester. Prerequisite, Course 13.
- 18. Structural Design. Theory for and practice of making complete designs for steel bridges, roofs, and other structures. Lectures, drawing and computing. One hours lecture, six hours draughting. Prerequisite, Courses 8, 13 and 16.
- 19. Highway Engineering. Roads and streets of broken stone, paved and oiled roads, location of new roads. Two hours, second semester.
- 20. Tunneling and Mining. Excavation, lining, ventilation and drainage of tunnels and mines; sinking shafts, pumping and hoisting. One hour, second semester. Prerequisite, Course 11.
- 21. Reinforced Concrete. Theory, design and construction of concrete and reinforced concrete structures. Two hours lecture, three hours draughting, second semester. Prerequisites, Courses 7 and 8.
- 22. Contracts and Specifications. A synopsis of the law of contracts as applied to Engineering construction and a study of typical contracts and specifications. The course includes

riparian rights, boundary lines, survey descriptions, etc. Two hours, second semester.

23. Thesis. A study of some special engineering problem or an independent investigation by the student. The subject must be approved by the professor in charge of the department of Civil Engineering and by the professor who would have immediate direction of the work proposed, not later than November 1st of the Senior year. It must be completed and submitted by June 1st of the same year. One hour, first semester; two hours, second semester.

#### ELECTRICAL ENGINEERING

Professor, Arthur W. Nye. Assistant Professor, J. C. Gaylord. John Rogers, Mechanician.

The courses offered in this department are designed to fit young men to engage in the operation and production of electrical apparatus, also in the application of electricity to the Arts and Sciences.

During the Freshman and Sophomore years there is laid a broad foundation, consisting of Physics, Mechanics, Chemistry, Surveying and Language. During the Junior and Senior years special studies in electricity and applied electricity are pursued. These involve the theory of electricity and magnetism, with application to direct current machines and measuring instruments, the theory of alternating currents and alternating machinery and apparatus, comprising alternators, synchronous and induction motors and rotary convertors. Courses are also given in Electrical Distribution and Transmission, Lighting and Power plants.

The work of the Engineering Laboratories is co-ordinate with the lecture and class room and aims to give a practical knowledge of electrical measurements and the handling of electrical machinery.

Southern California, in its present state of rapid development, offers exceptional opportunity to the hydraulic and electrical engineer. The work of the University is splendidly supplemented by the large amount of work under construction. The engineers and superintendents in charge of these have been very courteous in aiding the classes on their various trips of inspection. The various power and electric plants in and about Los Angeles afford excellent examples of electric development of high tension and power transmission not surpassed by any other in the United States. Various excursions to these plants and lectures by superintending engineers are some of the features enjoyed by th students of this department.

# Required Course in Electrical Engineering FIRST YEAR

#### First Semester

	Lab.	Class
	Hours.	Hours.
Math., 4, 5-Algebra, Trig		5
Engr. Drawing, 1	6	
Chemistry, 2—Qual. Anal		3
Chemistry, 2a	6	
English, A 1		3
Civil Eng., 1—Surveying, Theory		2
Civil Engr., 2—Surveying, Field	6	

#### Second Semester

	Lab.	Class
	Hours.	Hours.
Math., 6—Analytical Geometry		5
Eng. Drawing, 2	6	
Chemistry, 3		3
Chemistry, 3a	6	
English, A 1	,	3
Civil Engr., 1	6	••••
Civil Engr., 2	6	

# SECOND YEAR

# First Semester

French or Spanish		5
Physics, 1—Elec. and Heat	3	3
Math., 8—Calculus		3
Engr. Draw., 3—Descrip. Geom	3	1
Physics, 4—Shop	4	
Civil Engr., 13—Materials		3
Second Semester		
French or Spanish		5
Physics, 2—Mech. and Light	****	5
Math., 9—Int. Calculus		3
Elect. Engr., 11—Shop		3
Physics, 4—Shop	4	J
Physics, 5—Electricity		2
Elect. Engr., 11		1
Diet. Digi., II		1
THIRD YEAR		
First Semester		
		5
First Semester  Elect. Engr., 1—General Physics, 6—Elect. Measurements		5
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech.	. 6	
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech.	. 6	
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Mater. Physics, 9—Mechanism	. 6  	3
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Mater.	. 6  	3 2
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Mater. Physics, 9—Mechanism	. 6  	3 2 2
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Mater. Physics, 9—Mechanism	. 6  	3 2 2
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Mater. Physics, 9—Mechanism Elect. Engr., 4—Thermodynamics.	. 6  	3 2 2
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Mater. Physics, 9—Mechanism Elect. Engr., 4—Thermodynamics.  Second Semester	. 6	3 2 2 2 3
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Mater. Physics, 9—Mechanism Elect. Engr., 4—Thermodynamics.  Second Semester Elect. Engr., 1	. 6	3 2 2 3
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Mater. Physics, 9—Mechanism Elect. Engr., 4—Thermodynamics.  Second Semester  Elect. Engr., 1 Elect. Engr., 2—Dynamo Lab.	6	3 2 2 3 3
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Mater. Physics, 9—Mechanism Elect. Engr., 4—Thermodynamics.  Second Semester  Elect. Engr., 1 Elect. Engr., 2—Dynamo Lab. Civil Engr., 7	6	3 2 2 3 3
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Mater. Physics, 9—Mechanism Elect. Engr., 4—Thermodynamics.  Second Semester  Elect. Engr., 1 Elect. Engr., 2—Dynamo Lab. Civil Engr., 7 Civil Engr., 8 Elect. Engr., 8 Elect. Engr., 5—Steam Engr. Elect. Engr., 6—Excursions	6	3 2 2 3 3
Elect. Engr., 1—General Physics, 6—Elect. Measurements Civil Engr., 7—Anal. Mech. Civil Engr., 8—Mech. of Mater. Physics, 9—Mechanism Elect. Engr., 4—Thermodynamics.  Second Semester  Elect. Engr., 1 Elect. Engr., 2—Dynamo Lab. Civil Engr., 7 Civil Engr., 8 Elect. Engr., 8 Elect. Engr., 5—Steam Engr.	6	3 2 2 3 3

3

#### FOURTH YEAR

#### First Semester

Elect. Engr.,3—Alter. Currents		5
Elect. Engr.,7—Dyn. Lab., A. C. Mach	6	
Elect. Engr., 8—Elect. Design	3	. 2
Economics, 1	****	3
Elect. Engr.,9—Engr. Lab.	3	
Elect. Engr., 12—Thesis	3	
Second Semester		
Elect. Engr., 3	****	5
Elect. Engr., 7	9	
Elect. Engr., 6—Excursions	3	
Elect Engr. 10—Commercial Elect Engr.		2

#### COURSES IN ELECTRICAL ENGINEERING

Elect. Engr., 12

- 1a. Dynamo Electric Machinery. This course comprises a study of the theory and operation of direct current generators and motors. Text: Elements of Electrical Engineering, Vol. 1, by Franklin & Esty. Five hourse, first semester. 8:55, Monday, Tuesday, Wednesday, Thursday, Friday. (Nye.)
- 1b. Dynamo Electric Machinery. This course comprises a study of electric distribution and lighting and the elementary principles of Alternating Currents. Five hours, second semester. 8:55, Monday, Tuesday, Wednesday, Thursday, Friday. (Nye-Gaylord.)
- 2. Dynamo Laboratory. Study is made of the performance of direct current machines by means of their characteristic curves; efficiency, regulation and heat tests are run; and various methods of operating generators and motors and their auxiliary control apparatus are studied. Junior Year.

Six periods. Second semester. 1:05-3:50, Monday, Tuesday. (Gaylord.)

- 3a. Alternating Currents. A mathematical study of the theory, and applications to modern machinery. Study of text and lectures. Text: Elements of Electrical Engineering, Vol. 2, by Franklin & Esty. Five hours, first semester. 10:50, Monday, Tuesday, Wednesday, Thursday, Friday. (Gaylord.)
- 3b. Electrical Engineering. Railway engineering, power plant engineering, water power installations, economics of electrical engineering, etc. Five hours, second semester. 10:50, Monday, Tuesday, Wednesday, Thursday, Friday.
- 4. Steam Engineering. Boilers, combustion, fuels, laws of gases and heat conduction, corrosion and scale, testing, flow of steam in pipes, etc. Practical apparatus as used in steam power plants. Thermodynamics, expansion of gases, heat cycles, temperature-entropy diagrams and pressure volume diagrams applied to gas, hot air and steam engines. Three hours, first semester. 8:00, Monday, Wednesday, Friday. (Nye.)
- 5. Steam Engineering. A study of various types of steam engines, indicator cards, valve motions and diagrams, multiple expansion, design of parts. General layout of plants. Two hours, second semester. 9:55, Monday, Wednesday. (Nye.)
- 6. Excursions. Trips to various power plants and factories with a view to observing methods and processes. Written reports required of students.
- 7. Dynamo Laboratory. Tests and study of alternating current apparatus. Senior Year. Six periods. Both semesters. (Gaylord.)
- 8. Electrical Design. Study of types of electrical machinery; calculations and detail drawings. Senior Year. Two periods class, three periods drafting. First semester (Gaylord.)

- **9. Engineering Laboratory.** Testing of strength of materials, engine and boiler efficiencies, etc. Senior Year. Three periods.
- 10. Transmission and Station Equipment. A study of commercial problems of electric power generation and distribution, and of standard polyphase machinery. Two hours, second semester.
- 11. Workshop Mechanics. A consideration of the materials of machine construction, the methods of working them and workshop appliances. Lectures, no credits, but required of all graduates in Electrical Engineering. (Nye, Gaylord.)
- 12. Thesis. Original investigation and study of some special problem.

#### MINING AND CHEMICAL ENGINEERING

Professor, Laird J. Stabler.

The University is at present offering two years of the course in Mining and Chemical Engineering. The work, as outlined, gives thorough training in the fundamental subjects of mathematics, chemistry, physics, drawing and the elements of engineering. The foundation laid in the two years prepares the student to enter any of the good mining colleges, and complete the work of the Junior and Senior years, specializing in Mining and Metallurgy.

# Courses in Mining or Chemical Engineering Freshman Year

	First.	
	Semester.	Semester.
Math., 4, 5, 6	5	5
Chem., 2, 2a, 3, 3a	5	5
Civil Engineering, 1	2	2
Civil Engineering 2 (Field Work)	3	3
Engineering Drawing, 1, 2	4	4

# Sophomore Year

Math., 8, 9 (Calculus)	4	. 4
Geology, 3-Mineralogy	2	2
Eng. Drawing, 3—Descriptive Geom	1	1
Eng. Drawing, 3	3	3
Physics, 1, 2	5	5
Chemistry, 4, 8	4	4

# SUMMER SESSION OF 1911 COLLEGE OF LIBERAL ARTS

#### Tentative Announcements.

The Summer Session of the College of Liberal Arts will be held for six weeks during July and August, the exact dates to be announced later. Courses in the Summer School are designed to meet the needs of the following classes of students:

- 1. Undergraduates and Graduates of a College or University.
- 2. Teachers, including those in public schools, private schools and other institutions of learning.
- 3. Auditors, those desiring to hear courses of lectures or occasional lectures (not for credit).
- 4. Preparatory and Special Students, those who are deficient in entrance credits or who wish to make a study of some particular subject.

For entrance no formal examinations are required, but students will be admitted to such courses only as their previous training has prepared them to pursue profitably.

Students will register and pay their fees at the general office of the University before entering classes. A registration fee of one dollar is charged all students. The fees for the different courses are indicated in the announcement of each department.

The maximum college credit will be six semester hours. In preparatory subjects not over one unit may be earned, the student devoting his entire time to the work.

# COURSES OF INSTRUCTION

#### BIOLOGY

Assistant Professor Andrew C. Life, A. M.

- 1. General Botany, 3 to 6 units.
- 2. Special Botany, 3 to 6 units.
- 3. General Zoology, 3 to 5 units.
- 4. Preparatory Botany, ½ or 1 unit.
- 5. Preparatory Zoology, ½ or 1 unit.

\$14 or \$24 for each course

#### CHEMISTRY

Professor Laird J. Stabler, M. S.

- 1. Elements, 3 to 6 units.
- 2. Qualitative Analysis, 3 to 6 units.
- 3. Preparatory Chemistry, ½ or 1 unit.

\$18 for each course

#### DRAWING

1. Mechanical, 1 unit.

\$10 for the course

2. Engineering Drawing, 2 to 4 units.

\$7.50 or \$15 for the course

#### **ECONOMICS**

Professor Rockwell D. Hunt, Ph. D.

- 1. Principles, 2 or 3 units.
- 2. Labor Problems, 2 or 3 units.

\$10 for each course

#### **EDUCATION**

Professor Thomas B. Stowell, LL. D.

- 1. History of Modern Education, 3 units.
- 2. Principles of Education, 3 units.

\$12.50 for each course

#### **ENGLISH**

Professor James Main Dixon, L. H. D. Associate Professor Odell Shepard, A. M.

- 1. Contemporary British and American Poets (Shepard).
- 2. Contemporary Drama (Shepard).
- 3. Modern Essay, 1800-1900 (Shepard).
- 4. Chaucer, 2 units (Dixon).
- 5. Shakespeare, 2 units (Dixon).

Preparatory Courses to be announced.

\$10 for each course

#### **FRENCH**

Professor Edgar M. Von Fingerlin, Ph. D.

- 1. Elementary, 2 units.
- 2. Modern Authors, 3 units.
- 3. Classical Literature, 3 units.

\$12.50 for each course

#### **GERMAN**

Instructor Bertha J. Jacoby, A. B.

- 1. Elementary, 3 units.
- 2. Modern Authors, 3 units.
- 3. Classical Authors, 3 units.

\$12.50 for each course

#### HISTORY

Professor Tully C. Knoles, A. M. Professor Rockwell D. Hunt, Ph. D. Assistant Professor Roy Malcom Ph. D.

- 1. English, 2 units (Malcom).
- 2. Mediaeval, 2 units (Knoles).
- 3. U. S. Constitutional, 2 units (Malcom).
- 4. Pacific Slope, 2 units (Hunt).
- 5. American, 1/2 unit (Knoles).
- 6. Civics, ½ unit (Knoles).
- 7. English, Preparatory, ½ or 1 unit (Malcom).
- 8. Ancient, Preparatory, ½ or 1 unit (Malcom).

\$10 for each single course. 1 Preparatory unit \$15

#### **ITALIAN**

Professor Edgar M. Von Fingerlin, Ph. D.

- 1. Elementary, 3 units.
- 2. Modern, 3 units.
- 3. Classical, 3 units.

\$12.50 for each course

#### **MATHEMATICS**

Professor Paul Arnold, Ph. M.

Assistant Professor Hugh C. Willett, A. B.

- 1. Algebra Theory, 3 units.
- 2. Trigonometry, 3 units.
- 3. Solid and Spherical Geometry, 3 units.
- 4. Plane Analytical Geometry, 3 units.

\$15 for each course

- · 5. Algebra, Preparatory, 1/2 unit.
  - 6. Algebra, Preparatory, ½ unit.
  - 7. Advanced Algebra, Preparatory, ½ unit.
  - 8. Plane Geometry, ½ unit.
  - 9. Plane Geometry, ½ unit.

\$12.50 for each course

# **PHYSICS**

Professor Arthur W. Nye, M. E.

- 1. Electricity and Heat, 4 units.
- 2. Mechanics and Light, 4 units.
- 3. Preparatory, 1/2 unit.
- 4. Preparatory, ½ unit.

\$15 for each course. 3 and 4 together \$25

# SOCIOLOGY

Professor Rockwell D. Hunt, Ph. D.

- 1. Sociology and Social Theory, 2 or 3 units.
- 2. Social Theory, 2 or 3 units. \$10 for each course

#### SPANISH

Instructor Ester Huet

- 1. Elementary, 3 units.
- 2. Advanced, 3 units.
- 3. Conversation, 2 units.

\$12.50 for each course

# COLLEGE OF PHYSICIANS AND SURGEONS

#### CALENDAR

1911.

September 13, 14, 15Examination for Entrance and Ad-
vanced Standing in the Session of
1910-1911.
September 18First Semester begins.
September 23Thanksgiving Vacation.
September 25Christmas Vacation begins.

#### 1912.

January 2	Second Semester begins.
February 22	Washington's Birthday.
May 20	Final Examinations begin.
June 13	Commencement.

#### **FOREWORD**

The University of Southern California in keeping pace with other of the leading universities of the country was quick to note the advancements being so rapidly made in medical science, and, in establishing and building up the various university departments, was one of the first institutions in the West to broaden the scope of the curriculum in its medical department. In 1885, when the medical department of this university was founded, the Trustees placed themselves on record for higher medical education, declaring for a three-year course, which was the exception at that time, and since then has been among the first in the rank of universities to lift its medical department up to the highest plane of efficiency. Money has been liberally spent and no pains have been spared to equip the medical laboratories, broaden and perfect the clinical departments, and to place them in charge of experienced and capable teachers and instructors. The Alumni of the medical department of this University

number many of the leading physicians and surgeons of this country—trained, skilled men and women in their chosen profession, and an honor to the institution that prepared and equipped them. The College of Physicians and Surgeons of Los Angeles, an institution of high class, became an integral part of the University of Southern California one year ago, thus becoming its medical department, its faculty believing that better work could be done under the auspices of a strong university, where the university spirt might be inculcated into the various branches of its medical course. The wisdom of this union was apparent and is manifested by the superior work now being done in all departments of the medical curriculum.

The government of the College of Physicians and Surgeons is vested in the Board of Trustees of the University and in the Judicial Council and Senior Faculty of the Medical Department, as provided in the articles of incorporation of the University.

#### ENVIRONMENTS .

The City of Los Angeles, with a population of about 350,000, is but little less talked of, written about, and wondered at, than any other city in the world, located as it is, in the very heart of Nature's most favored spot on earth, surrounded by a semi-tropic panorama so inviting and so enchanting that all those who come within its gates are amazed at the lavishness of Nature's gifts to the City of the Angels—the brightest gem in the diadem of America's most charming cities of refinement and culture.

Here will be found all the elements that tend to make student life pleasant and attractive. The ideal climatic influences permit the student to spend much time in the open air, 'mid surrounding of historic interest, 'neath sunny skies, with semi-tropic foliage, flowers and blossoms on every hand, while, stretching away into the distance, are found orange orchards and lemon groves, leading up to the very base of the mountain range, with towering peaks perpetually covered with snow and half surrounding this garden spot that Nature has so well endowed.

The curriculum of this college is so full and so broad that it requires and exacts the greater portion of the student's time, but still there must be some time for relaxation and recreation, and here Nature has prepared in abundance opportunities for these necessities. The rigorous climate of the East and the Middle West keeps the student too much indoors, and, as a consequence, he becomes the subject of the devitalizing influences of a physically inactive life. We invite the attention of students whose health has become impaired by climatic conditions elsewhere, and vet we do not encourage invalids to come to Los Angeles for study in this college, for we do not believe that invalids should enter upon the study of medicine. The requirements are too exacting and the work too arduous, and the man or woman who is weak, mentally or physically, should not attempt the study or the practice of a profession requiring so much self-sacrifice and untiring effort.

The population of Los Angeles is essentially cosmopolitan. People in the different walks of life, from all quarters of the globe, are to be found here, and we have, therefore, an abundance of clinical material, which this college utilizes to the very best advantage.

#### THE COLLEGE BUILDING

Located at 516 East Washington Street, in a charming section of Los Angeles, surrounded by splendid homes and easy of access, not on the outskirts of the city, nor yet too near the business center, is to be found the modern and commodious building of the College of Physicians and Surgeons. Our college building was designed, planned and erected especially for our use, and contains all of the elements of a modern and up-to-date college building. It is three-story, with basement, built of brick, with stone facings, and is practically fire-proof.

In the basement is located our instantaneous water heating system; a furnace which conveys heated air to each department, with apparatus for forcing cool and pure air into each room when needed; storage tanks for anatomical material; a receiving and preparation room for same; a clay modeling

room for the use of the Anatomical Department; also a Gymnasium, well equipped, and with shower bath for the use of students.

On the first floor is located the College office, Faculty room, two Chemical laboratories, thoroughly equipped with all modern apparatus and appliances, clinical rooms for each department of medicine and surgery, operating room, sterilizing room, clinic waiting room and drug room.

Located on the second floor are the Pathological, Bacteriological, Histological and Physiological laboratories, which have east, north and west exposures, affording an abundance of light, and are well heated and equipped with all modern appliances. Glass covered tables are arranged around the north and west exposures, and all the latest apparatus has been installed. Each student is supplied with microscope (Bausch and Lomb's), with oil immersion lens, for use when required. Private laboratories form a part of the main laboratory hall, thus affording opportunity for private research. On the second floor is also located one large amphitheatre, seated with two hundred modern opera chairs; one lecture hall seated with opera chairs; an Electro Therapeutic room. equipped with Static Machine, X-Ray apparatus, and all necessary appliances; a chart room, supplied with imported charts, manikins, etc., arranged for use in various illustrative and didactic work; also a library and reading room, commodious, well lighted and ventilated, and arranged for the convenience and use of students. Many valuable volumes are found upon the library shelves, periodicals and journals are also there for the use of our students, and, upon the shelves of the College Museum may be found many rare and valuable Pathological specimens.

Much new apparatus has been added in the Physiologic and Electro-Therapeutic departments, stereopticon illustration is one of the leading features in our primary departments, and, in fact, no expense has been spared to most thoroughly equip this college with the latest and best paraphernalia and equipment for the teaching of modern medicine and surgery. Several thousand dollars in apparatus was installed for the opening of our 1910-11 session.

On the third floor is located our Anatomical Department, and it is most complete in every detail. Opening into our main Anatomical Department, by sliding doors, is our Anatomical amphitheatre, seated with opera chairs and arranged so that the most delicate operations and demonstrations upon the cadaver can be witnessed, a revolving table being used. All these features, and many more, serve to make our equipment modern and up-to-date in every detail and, at the same time, provide for the comfort and the health of our teachers and students.

#### REQUIREMENTS

# Requirements for Matriculation

The requirements for matriculation and entrance into this College have been placed high in order to conform to the requirements of the leading medical institutions of the country. The proper foundation for a thorough and comprehensive medical education must be builded before the student enters upon his medical course. This College does not deviate in the least from its bulletined requirements as set forth in this catalogue; therefore the prospective student, before applying for matriculation, should know that his preliminary qualifications are up to our standard of requirements, or so nearly so that he will be able to make up during his Freshman year, any deficiency in credits.

The minimum requirements of this College are as follows:

- (a) A bachelor's degree in the Arts and Sciences from an approved college or university.
- (b) A certificate of the Association of American Universities.
- (c) A diploma from a regular, accredited high school, normal school, or academy, requiring for admission thereto evidence of the completion of an eight years' course in the primary and intermediate grades, and for graduation therefrom not less than four years of study, embracing not less than two years (4 points) of Latin, two years (4 points) Mathematics, two years (4 points) English, one year (2

points) History, one year (2 points) of Laboratory Science, and seven years (14 points) of further credits in Language, History or Science.

(d) In event of a student not having completed his full high school course, or of his having done special work in high school, college or academy, or in event of an applicant not being able to furnish satisfactory evidence of having completed a course of study necessary to acquire the required number of points in the different branches as above stated, he may be examined by the Examiner appointed by the Board of Medical Examiners of the State of California. whose certificate will be accepted by this College. This Examiner is a resident of this city, and this examination may be taken at any time previous to the student's matriculation. Examinations bearing upon the applicant's preliminary qualifications will in no event be conducted by any person or persons connected with this Faculty or with this institution, but must be conducted by the Examiner appointed by the Board of Medical Examiners of the State of California.

The minimum number of points required for matriculation are as follows:

A. REQUIRED: (16 Points).	Points
Mathematics—(minimum, 2 years; maximum, 3 years)	4
Algebra and Plane Geometry.	
English—(minimum, 2 years; maximum, 4 years)	4
(a) English Grammar;	
(b) Rhetoric and Composition.	
*Latin-(minimum, 2 years; maximum, 4 years)	4
(a) Latin Grammar;	
(b) Latin Prose Composition;	
(c) Reading four books of Ceasar, or equivalent.	
Physics—(1 year)	2
With laboratory work.	
History—(minimum, 1 year; maximum, 3 years)	2
Including Civics and Political Economy.	
Total required	16

# B. OPTIONAL: (14 Points).

English Language and Literature—(2 years)	4
Language—German, French, Spanish or Greek (4 years) Not less than one year in any one.	2
Advanced Mathematics—Solid Geometry and Trigonometry (one-half year each)	1
Natural Science (1 year)	2
Physical Science—(1 year)	2
Chemistry.	
Earth Science	1
Physical Geography and Geology, one-half year each.	
Physiology and Hygiene (one-half year)	1
Astronomy (one-half year)	1
Drawing (one-half year)	1

\*For present Latin requirement, may be substituted four years of either high school French or German, or its full equivalent; provided satisfactory examination is passed in the elements of Latin grammar.

Thus making up the thirty points required for matriculation. A student may be matriculated, conditioned in not more than six points, made up of either Required or Optional subjects, which conditions he will be required to discharge before entrance into the Sophomore Class. In explanation, it may be well to state that in designating the requirements in each subject as so many points, one point in any subject is equivalent to a high school or academic course of five periods per week of not less than 45 minutes each for eighteen weeks.

Candidates who are not qualified for admission to the Department of Medicine, upon matriculation at the College of Liberal Arts of the University, may elect courses especially designed for those who plan to study medicine. These courses include Physics, Inorganic and Organic Chemistry,

Zoology, Botany, Embryology, Bionomics, and should give the student that grasp on fundamental branches which is essential for a proper understanding of the medical course.

#### COURSE OF STUDY

Each student is required to attend 80 per cent of all exercises in every annual course of study for which he seeks credit. No student shall be given credit on examination unless he shall have attained a grade of at least 75 per cent or its equivalent in any other marking system, and no student shall be graduated unless he shall have attained a passing grade on examination of at least 80 per cent. in each and all subjects taught and examined upon in this college.

The curriculum of study in this college is divided in a manner that enables the student to complete his minors, together with the majority of the laboratory courses, during the Freshman and Sophomore years, thus enabling the Junior and Senior students to avail themselves of the vast didactic, recitative and clinical work, which compose the last two years of the course in this institution.

# Advanced Standing

This college does not grant time credits to students holding a baccalaureate degree or a degree in Pharmacy or Dentistry, nor for time spent in any other than a regular College of Medicine and Surgery—whose curriculum and course meet the requirements of the Association of American Medical Colleges; but we may grant the student subject credit for work done, providing, of course, satisfactory evidence of such work having been done is furnished; thereupon the student may avail himself of equivalent electives.

A student who has previously matriculated with and has spent time in another accredited medical college, recognized as such by this institution, will be required to present to the Dean of this college a statement from the Dean of the college he has attended, stating that he has paid all dues and fees due said college, that he is free from all charges or demerits

of whatever nature, and that he has satisfactorily completed the course of study prescribed by the curriculum of said college; and provided that the entrance requirements of the college from which he presents his credentials were equivalent to those of the Association of American Medical Colleges at that time, and the course of study provided and set forth in each student year was equivalent to the requirements of this school; and provided, further, that the Judicial Council are satisfied with his credits and markings, taking into consideration his general average, which will include his percentage of attendance upon all lectures, recitations, laboratory work and clinics, then the student may enter upon his work in the succeeding grade, but before advanced standing will be granted him the Dean of this college will verify the student's credentials, and if found complete and satisfactory, credit for the work will be entered upon the records of this college; but such advancement will not exempt the student from the final examination requirements exacted of all students applying for a degree from this college.

A student presenting credentials and credits from another medical college, recognized by this college, should bear in mind the fact that such credentials must show that the credits were received in the regular way, and in the regular course of instruction; that said course must have been regular and in accordance with the requirements of the Association of American Medical Colleges, the Cailfornia State Law and the Board of Medical Examiners of the State of California. No credit whatever will be allowed for time not actually spent in a regular recognized medical college.

A student who has attended one or more courses in an otherwise reputable medical college, but whose entrance requirements are not now equivalent to those of this institution, notwithstanding he may meet our class examination requirements, will not be granted advanced standing, unless the preliminary qualifications of said student were equivalent to the requirements of this college at the date of his matriculation with the college from which he comes.

Graduates of medical colleges, whose requirements were equivalent to those prescribed by the Association of American

Medical Colleges, and whose credentials are recognized by the Board of Medical Examiners of the State of California. will be admitted to the Senior class without examination. provided, however, that the curriculum of study of the aforesaid college covered three full years, and provided also that the requirements for matriculation were equivalent to the requirements of the Association of American Medical Colleges at the time of his matriculation. Should, however, the college from which the applicant graduated have only prescribed and required at the time of his graduation a two-years' course, the applicant will be matriculated in the Junior year and be required to pursue the course outlined in our Junior year schedule, provided that the matriculant is working for a degree from this school, but not otherwise. Juniors and Seniors of this college are required to attend at least 80 per cent, of all clinics throughout the Junior and Senior years.

To graduates and students of Colleges of Homeopathic or Eclectic Medicine will be granted time credits for as many years as they attended those colleges, provided they have met the previous requirements of the Association of American Medical Colleges, and they pass an examination in Materia Medica and Therapeutics, as prescribed by this college. All students admitted to advanced standing must show credentials of having passed regular examination in the branches taken in the year preceding the one they desire to enter, or pass such examination in this college.

The carrying and removal of conditions in all cases will be governed by the rules and regulations promulgated from time to time by the Association of American Medical Colleges and in conformity to the State Law of California. When not conflicting with these rules and regulations, it will be necessary in order that a student may advance from one grade to the succeeding or higher grade, that he pass at least all but two of the required examinations in the branches or subjects taught in that year, except passing from the Junior to the Senior year. Should he fail to pass the examinations at the beginning of the succeeding session, in the subjects in which he has been conditioned, as stated above, he may enter that class as a conditioned student for that one session

only, and if he does not remove said conditions by the end of the session, he must repeat the work of the year imposing such conditions.

No student can, therefore, become a conditioned or an unconditioned member of the Sophomore class unless he has at least passed all but two of the required Freshman year examinations when that year closes; nor of the Junior class unless he shall have passed the Freshman year examinations and, in addition, at least all but two of the Sophomore year examinations at the close of that year; nor of the Senior class unless he shall have passed all of the Freshman, Sophomore and Junior year examinations. This college does not permit the carrying of conditions into the Senior year.

This college reserves the right to refuse admission to any student or to terminate the attendance of any student, at any time for what may appear to the Judicial Council to be good and sufficient cause, as inefficiency, conduct unbecoming a gentleman, or conduct not conducive to the morale of the class or institution; also, to refuse a student the privilege of any special or final examination, for causes, as above stated.

Students will not be permitted to substitute private work in any branch for the regular college work prescribed in our curriculum, except under the direct supervision of an instructor designated or appointed by the Dean. Examinations will be conducted in such work done by the Professor to whose department it belongs; no markings nor credits from private instructors will be recognized by this college.

A student entering this college is not only supposed to, but will be required to conform to all rules and regulations of the college as promulgated from time to time by the Dean.

A student who is under suspension or expulsion from an accredited medical college, will not be matriculated in this institution without the written consent of the college imposing such.

A student defacing or injuring the property of this college will be required to make due reparation for same.

### Requirements for Graduation

The applicant for the degree of Doctor of Medicine must have fulfilled all the requirements, as set forth in this announcement, and other additional requirements that may be promulgated from time to time by this college.

1st. He must have attained the age of 21 years and bear a good moral character.

2nd. He must notify the Dean on or before the 1st day of April of the College year, in writing, of his intention to apply for, and to take the final examinations of this college; said application must be accompanied by the Examination fee, all previous college fees having been paid.

3rd. He must have previously met all the matriculation requirements of this college, must have attended at least four full courses of lectures, recitations, laboratory work, and clinics, in an accredited medical college, whose requirements are equal to those prescribed by this college, no two courses having been done in the same year, the last course of which must have been in this college. If the student has attended courses in another Medical College, recognized by this institution, he must satisfy the Judicial Council, through the Dean, regarding his standing and his proficiency in the branches completed, either by examination or otherwise as the Judicial Council may elect.

4th. He must have completed the required courses in all the departments of the college, and his percentage of attendance must be at least 80 per cent. in all departments, and his percentage of proficiency on examination must not be less than 80 per cent. in all the branches indicated in our curriculum.

5th. He must be present at the time and place scheduled by the Dean for final examinations, and his absence from an examination in a given department will indicate failure in that department, and will be entered as such against the student.

6th. He must undergo a written final examination, or both written and oral, if required, in all departments; each paper must be written in English; and penmanship, orthography,

punctuation, general style and characteristics of each paper will be considered.

7th. He must be free from demerit marks, must have discharged all conditions in each and every department and must be present at the Commencement Exercises, unless excused in writing by the Dean.

# Combined Six Year Course for Degree of A. B. and M. D.

Students who have matriculated in the College of Liberal Arts of the University and who plan to study medicine, may so combine the four-year course for the A. B. degree with the four-year course for the M. D. degree as to take both degrees in six years.

### Combined Course for the Degree of A. M. and M. D.

Students holding the A. B. degree from recognized colleges and who enter the Freshman class of the College of Physicians and Surgeons, may matriculate at the Graduate School of the University, thus becoming candidates for the A. M. degree. Registration at the Graduate School may be made any time before the opening of the Junior year. The candidate pursues advanced study along some special line and submits a thesis embodying original research. The degree of Master of Arts is given to the candidate upon the completion of the requirements for the advanced degree.

# FACILITIES FOR INSTRUCTION

The Faculty and the general teaching staff of the College of Physicians and Surgeons have been selected with scrupulous care and comprise many of the ablest teachers and leading men and women in the West. The instructors in each department have been selected upon their merits, each instructor working along his chosen line. This college lays much stress upon its laboratory equipment and the thoroughness of its laboratory courses. Much valuable apparatus was added the past year and more is added from time to time, as needed. Two large and thoroughly equipped laboratories for the teaching of Chemistry, Pharma-

cology and Physiology, one of the most modern laboratories for work in Pathology, Bacteriology and Histology, together with private laboratories for special and research work, all thoroughly equipped, also one of the most modern anatomical departments with ample material, make this school the pride of its founders and friends, and a worthy department of the University of which the College of Physicians and Surgeons is an integral part. But laboratory facilities and equipment alone are not sufficient for a thorough course in these departments. Laboratories must be manned by competent and experienced teachers and instructors, and in this college the laboratories are in charge of paid instructors, noted for their abilities as teachers in their respective departments.

# The College Clinic-Clinic No. 1

From 12:30 to 2 p. m. each day, excepting Sundays and holidays, the College Dispensary is open to the needy poor, and the Dispensary Staff of the college, composed of carefully selected professional men and women, give their very best services to those applying for treatment, and, as the College of Physicians and Surgeons is located in a decidedly well-to-do neighborhood, therefore the clinics in this institution are of a decidedly high order, capable of giving a complete case history, which enables the teacher and student to carefully study each case in detail and note from time to time the effect of therapeutic measures. Material coming to this clinic is ample and of splendid quality.

# The Down Town Clinic-Clinic No. II

Realizing the importance of a thorough clinical training in all departments of medicine and surgery, after proper preparation in the fundamental essentials, this college has broadened and completed its clinical facilities by the establishment of a down-town clinic, which will furnish rare opportunities to our students for actual contact with injury and disease. Clinic No. 2 is located in a district rich in clinic

material and will give aid yearly to thousands of cases which will enable our Junior and Senior students to perfect themselves in diagnosis and treatment. This clinic is open daily, except Sundays and holidays, from 12:30 to 2 p. m. A thoroughly trained corps of instructors is in attendance in all the various departments, and participation in this clinic work is obligatory upon the student and is an important part of our curriculum and requirements. Junior and Senior students will alternate between the college and down-town clinic in sections as at the County Hospital.

#### The County Hospital Clinic

The Los Angeles County Hospital, the most extensive, modern and up-to-date county charity institution in the West, with over five hundred beds, detention wards for the insane, modern medical, surgical and contagious wards and departments, where all manner of surgical and medical cases may be studied and observed, offers rare and ample opportunities for the study of not only the ordinary diseases and conditions usually met with in other large hospitals, but also rare tropical and semi-tropical diseases that drift into Los Angeles through our seaport, the gateway of entrance from Panama, Hawaii, the Philippines, etc., the study of the diseases indigenuous to which is most necessary at this time. Many interesting cases are daily met with here, which afford unusual opportunities for research work, and it is the policy of the clinical and laboratory staffs in this college to foster and to assist students along these lines of work. The advantages to the student here consist not merely in his walking through the wards, observing patients, with an occasional opportunity to examine, but the Senior and Junior classes are divided into section, and these sections of two or three students are allotted cases each week and are required to examine and diagnose by the latest and best known laboratory and clinical tests, write histories covering the etiological factors of each disease and outline the treatment and management of given cases throughout the different stages. This does not, however, end the student's interest in the case, which must be followed to convalescense or to autopsy, in which event, the pathological findings are recorded and reported upon by the section in charge of the case, the efficiency, or otherwise, of work thus done being noted.

The opportunities for the study and observation of acute Surgery are many, many cases being sent in from the City Hospital after first aid is given, and hundreds of cases being taken direct to the hospital for first aid and subsequent treatment. The ambulatory Surgical clinic is unexcelled, and the Detention Wards afford a rich field for the study of the various forms of neurotic cases and conditions. Students in this college are required to serve their time in each and all of the various departments of this hospital, which offer so rich a field for clinical experience.

# Hospital Positions

Internships and appointments in hospitals throughout the city and in surrounding towns are available to graduates from this college; in fact, in the past we have been unable to fill the positions open to appointments.

# College Fees

Matriculation Fee (paid but once)	5.00
Tuition Fee (payable in advance), per year	150.00
Final Examination Fee (not returnable)	25.00

A deposit of \$10.00 is required of all students to cover breakage and damage to buildings and equipment. The unexpended balance is refunded at the close of the year.

A rental of \$5.00 for microscope and \$2.00 for immersion lens is charged each year for their use in Histology, Embryology, Bacteriology, Microscopy and Pathology. The student will be charged for all breakage in any of the laboratories.

These fees are payable in advance each year. If not paid within four weeks of the beginning of the course, the right to attend lectures may be forfeited, and no student will be permitted to take an examination who is in arrears for fees,

and no advanced standing whatever will be given a student under such conditions.

# Places of Association, Recreation and Amusement

The students of medicine in this college, as in other medical institutions throughout the country, come from the various walks of life. By this we mean environmental influences; therefore, each seeks for himself a continuation or renewal of those environments which have shapened his habits and moulded his methods of life, as it were. This city affords, in abundance, opportunities for individual gratifications. Churches of all creeds and denominations are here in plenty, the Y. M. C. A. is strong and influential and extends a cordial welcome to young men who seek the refining influences of this splendid association. The Y. W. C. A., working along the same lines, is ever ready and anxious to serve the young woman who may wish to have thrown about her a Christian influence and a friendship that does much to assist, to shield and to protect. Then, on the other hand, we have clubs. social and political; lodges and societies of all kinds; high class theaters and places of amusement, and, in fact, all things that serve to relieve the student mind at times from the strain and grind of college work, all of which are necessary and right, when properly indulged in.

#### Prizes to Be Awarded, Session 1911-12

The Faculty will give a prize to the member of the Freshman Class who obtains the highest general average in the final examinations upon the studies of that year.

The Faculty will give a prize to the member of the Sophomore Class who obtains the highest general average in the final examination upon the studies of that year.

The Faculty will give a prize to the member of the Junior Class who obtains the highest general average in the final examinations upon the studies of that year.

The Faculty will give a prize to the member of the Senior Class who obtains the highest general average in the final examinations upon the studies of that year.

# Expense of Living in Los Angeles

The student can live in Los Angeles as in other large cities, moderately or extravagantly, according to his means or his habits of life. Good room and board near the college may be had for \$20.00 per month.

# How to Reach the College

Upon arrival in the city, go directly to the office of the Dean, Dr. Charles W. Bryson, Delta Building, 426 South Spring street, make known your wishes and present your credentials. You will receive the most courteous treatment, and full information will be given you on all subjects pertaining to the college, either by the Dean in person or his secretary. The Clerk of the College will be instructed to assist you in selecting suitable quarters, and each member of the Faculty, as well as many students of the school, will endeavor to make you feel at home. The term opens promptly on the 14th of September, in all departments, and there is no waste of time until Commencement Day, the 15th of June.

Address all communications relative to college matters, applications for catalogues, etc., etc., to the Dean,

DR. CHARLES W. BRYSON, 401-404 Delta Building, Los Angeles, California.

# DEPARTMENTS OF INSTRUCTION

#### ANATOMY

Professor, Harry Oscar White, M.D.
Assistant Professor, Robert Henry Burton, M.D.
Associate Professor, Raphael Burke Durfee, M.D.
Associate Professor, Henry Michael Rooney, A.B., M.D.
Associate Professor, Clarence Holmes Criley, Ph.B., M.D.
Associate Professor, Albert B. Ulrey, A.M.
Assistant Demonstrator, Frank E. Hull, M.D.

The study of Anatomy is divided into six courses and extends throughout the entire four years of college work. The laboratories and dissecting room are well equipped, and an abundance of working material is assured.

- 1. Practical Anatomy. Each student of the first and second year is required to dissect the entire lateral half of the body in three parts, during which he is assisted and quizzed by the instructors. When the student has finished a part, he must show suitable drawings made from his work and pass an examination before allowed to begin his next part. 360 hours, Freshman year; 396 hours, Sophomore year.
- 2. Bones, Joints and Ligaments, and three recitations a week for first year students; 108 hours.

The bones are studied individually and collectively, the students pointing out and describing the different parts from actual specimens. Bones are loaned the students for private study.

- 3. Muscles, Vessels, and the Viscera. This course extends throughout the first year, including 72 hours of recitation work, with special demonstrations on the cadaver.
- 4. Comparative Anatomy. One lecture a week through the Freshman year. 36 hours.

A course of lectures, illustrated copiously with osteological material and preserved specimens.

Structure is the servant of function. The effort is made in the course to point out the way in which the physiological functions common to all animals are provided for in the structure of type forms from among the lower animals. It is planned thus to give a broader conception of the living animal body, the zoological characteristics of the human species and the biological forces that have brought about the present peculiarities of form.

- 5. The Nervous System, Special Senses and the Reproductive Organs are taken up in the second year. Two recitations a week, with drawings of the part studied. 72 hours.
- 6. Surgical Applied Anatomy and Operative Surgery on the cadaver will be taught in the third year. 36 hours.

Text Books—Anatomy: Cunningham & Cunningham's Dissector.

For Reference: Piersol; Morris; Gray, and Treves.

#### HISTOLOGY

Associate Professor, Ethel Langdon Leonard, B.S., M.D.

Six hours a week throughout the Freshman year is given to the subject of Histology. The work is divided into two courses.

- 1. Elementary Histology is given the first of the Freshman year. The study of fresh tissues, those which have been disassociated, is first given to the student. Fixed and hardened tissues are next studied. All the elementary tissues of the body, including normal blood, are studied. The student is required to make sketches and colored drawings of all the specimens studied.
- 2. The work of the second semester is devoted to the study of the organs of the human body. Rapid methods of fixing and hardening tissues are discussed, and every technical detail of the work of preparing tissues for microscopical study is

demonstrated and discussed. Quizzes, written reviews and practical tests are given to the class at frequent intervals throughout the year.

Text Books recommended for study: Bailey's Histology; Clarkson's Text Book of Histology; Quain's Anatomy; Sczymonowicz & MacCallum, Microscopical Histology.

#### **EMBRYOLOGY**

Lecturer, Ethel Langdon Leonard, B.S., M.D.

One recitation and two laboratory hours per week throughout the Sophomore year are given to the subject of Embryology. The lecture course will embrace a comparative study of reproduction in the animal kingdom. Cell reproduction, fertilization, maturation, formation of gastrula, the ovum, implantation, etc., the relationship and structure of the foetal envelope will be thoroughly considered.

The Laboratory Course will consist of drawings, with full descriptive notes and examinations of sections of embryo of the pig, chick, etc., in various stages of development.

Text Book: Heisler.

# CHEMISTRY

Professor, Lyman Brumbaugh Stookey, A.M., Ph.D. Assistant Professor, Alanson Halden Jones, A.M., M.D.

1. General Inorganic Chemistry. (First year students.)
Two hours lectures; six hours laboratory, and two hours
recitations during the first half of the first semester.

Those phases of Inorganic Chemistry are considered which are necessary for a thorough understanding of chemical principles. Those aspects of physics which are required to give a thorough view of the constitution of matter, the element particle and its behavior, also the newer physics sufficient to make plain the subject of ionization are treated. The laboratory exercises are representative in character. The needs of the medical student are kept in mind. Most time is given

to those elements whose compounds later will be his chief study.

# 2. Some Applications of Physical Chemistry to Physiology. (First year students.)

Two hours lectures, six hours laboratory and two hours recitations during part of the first semester.

Among the subjects discussed are: Theory of solution, the properties of dissolved substances, osmotic pressure, concentration law, catalysis, mass action, ionization, thermo-chemical change, colloidal state, some reactions which go on in living matter, the physico-chemical organization of the cell.

# 3. Special Methods of Quantitative Analysis. (First year students.)

Two hours lectures, six hours laboratory and two hours recitations during part of the first semester.

Those quantitative methods, both volumetric and gravimetric, are taken up which have an application in practical medicine.

# 4. General Organic Chemistry. (First year students.)

Two hours lectures, six hours laboratory and two hours recitations during part of the second semester.

The laboratory exercises embrace a study of the aliphatic derivatives, the carbocyclic and heterocyclic compounds, and a synthesis of some typical substances. Ultimate analysis of organic compounds, derivation of formulae, methods of substitution and of addition are treated. While the principles of the subject are considered from the standpoint of pure chemistry, the examples, illustrations and laboratory exercises deal with methods and with compounds required in practical medicine.

#### 5. Toxicological Chemistry. (First year students.)

Two hours lectures, six hours laboratory, and two hours recitations during part of the second semester.

The object of this course is to acquaint the student with the more common volatile, alkaloidal and metallic poisons, and the methods employed in toxicological analysis.

# 6. Advanced Toxicological Chemistry. (Elective.)

Two hours second semester alternate years.

The aim of this course is to afford an opportunity to acquire a more thorough knowledge of toxicology than is possible in the elementary required course. The student is drilled in quantitative methods employed in toxicological analysis. Alleged blood stains are examined. To receive credit for this course each student must report satisfactorily on six poisoned animals submitted to him for toxicological analysis.

# 7. Chemistry of Carbohydrates, Fats and Proteins. (First year students.)

Two hours lectures, six hours laboratory and two hours recitations during part of the second semester.

This course deals with the chemistry of the common carbohydrates, fats and proteins, including those which occur in the body. In the laboratory the methods for their detection, differentiation and quantitative estimation are taught. The more common cleavige products of the protein molecule are studied.

# 8. Analysis of Food. (Elective.)

Three hours weekly first semester alternate years.

The more common methods employed in the analysis of foods are taught, emphasis being laid on the more frequently used adulterants and preservatives and their detection.

# 9. Water Analysis. (Elective.)

Three hours weekly during the second semester.

The student choosing this course is given an opportunity to familiarize himself with the methods used in the chemical analysis of water.

#### 10. Pathological Chemistry. (Third year students.)

One hour lecture and one hour recitation during the second semester.

The following subjects are discussed: Inorganic salts in disease, calcification, concretions and incrustations, uraemia, eclampsia, intestinal putrefactive processes including autointoxication, Ptomaines, benign and malignant tumors, phy-

totoxins, zootoxins, retrogressive processes, pathological pigmentation, chemical defenses of the body against disease.

# 11. Pathological Chemistry. (Elective.)

Two hours weekly during first semester, alternate years.

In this course the student is drilled in laboratory diagnosis. Opportunity is offered to examine pathological stomach contents, blood, urine, faeces, exudates, concretions, cerebrospinal fluid, and other available material with reference to diagnosis.

# 12. Chemical Conference. (Elective.)

Those who are interested are invited at times to be announced to discuss informally selected problems in medical chemistry, usually such as supplement instruction given in other ways. Problems under investigation in the laboratory are introduced for discussion.

Reference Books—Chemistry: (Inorganic): Gooch and Walker. (Organic): Perkins and Kipping.

Toxicology: Autenrieth.

# **PHYSIOLOGY**

Professor, Lyman Brumbaugh Stookey, A.M., Ph.D. Assistant Professor, Alanson Halden Jones, A.M., M.D.

Instruction in this department is given by lectures, laboratory exercises, demonstrations and recitations. The laboratory exercises enable the student to acquire a direct acquaintance with experimental methods. The chief ends sought in the laboratory exercises are precision in conducting experiments, accuracy in observation and logic in deduction.

Formal written examinations in each course of this department are held at frequent intervals. These tests are invaluable in the cultivation of a clear and concise expression of thought.

The assistantships in this department are honor positions and are awarded according to scholarship and fitness.

## 1. Physiology of the Cell. (First year students.)

Three hours lectures, four hours laboratory and two hours recitations during the first half of the first semester.

The cell is studied as an elementary organism, emphasis being laid on it as the seat of vital processes. Special attention is given to the structure and chemistry of protoplasm, chemical reactions in the cell, irritability, contractility, tropisms, development of multicellular from unicellular organisms.

## 2. Physiology of Muscle and Nerve. (First year students.)

Three hours lectures, four hours laboratory and two hours recitations during the second half of the first semester.

Kymographical records are made by each student. The laboratory exercises include a study of the following: Mechanical, thermal, chemical and electrical stimulation of muscle and nerve, indirect and direct stimulation of muscle, changes in intensity of stimulus, minimal and maximal stimuli, influence of duration of stimulus, laws of contraction, natural tetanus, artificial tetanus, elasticity and extensibility of muscle, influence of temperature and load on muscular contraction, contraction of human muscle, egograph, electrotonus, fatigue of muscle, fatigue of nerve, muscle currents, nerve currents, velocity of nerve impulse, conditions affecting excitability of nerve.

# 3. Physiology of Circulation, Blood and Lymph. (First year students.)

Three hours lectures, four hours laboratory and two hours recitations during the first half of the second semester.

Graphical records are kept by each student. Most of the experiments are carried out on the frog's heart. Among the topics studied in the laboratory are: Staircase character of heart-beats, cardio-inhibitory center, latent period of cardiac muscle, effect of vagus on heart, action of atropin, muscarin, pilocarpin and nicotin on heart, constant current on heart, perfusion of fluids through the heart, endocardiac pressure, action of the heart valves, reflex inhibition of the heart, sphygmograph, blood pressure in different parts of the vascular system, red cell count, white cell count, differential count,

colorimetric estimation of haemoglobin, spectroscopical examination of haemoglobin and its derivatives, haemorrhage and regeneration, coagulation.

# 4. Physiology of Respiration, Reproduction, Animal Heat. (First year students.)

Three hours lectures, four hours laboratory and two hours recitations during the second half of the second semester.

The laboratory exercises embrace a study of the following: Movements of the chest wall, vital capacity, respiratory waves of blood pressure, variations of intrathoracic pressure, gases of the blood, reflex stimulation of respiratory center, relation of afferent fibers of vagi to respiratory center, respiratory quotient and its variations, modified respiratory movements, calorimetry.

# 5. Physiology of Digestion, Absorption, Secretion, Execretion and Metabolism. (Second year students.)

Two hours lectures, six hours laboratory and one hour recitation during the first semester.

# 6. General Chemical Physiology. (Second year students.)

Two hours lectures, six hours laboratory and one hour recitation during the second semester.

This course embraces a study of the chemical changes occurring in the body, the chemical constituents of almost every tissue, and the functions of the constituents of the different tissues.

# 8. Physiological Action of Drugs (Pharmacology). Second year students.)

One hour lecture and one hour demonstration or recitation during both semesters.

This course consists of a study of the changes induced in the living organism by the administration of the more common and important drugs. Laboratory demonstrations supplement the lectures.

8. Advanced Pharmacology. (Elective.) Alternate years. One hour lecture weekly during the first semester.

In this course a study is made of the physiological changes induced in the body by the less frequently used drugs. The relation between chemical constitution and pharmacological action is considered in studying some of the newer synthetical drugs.

# 9. Physiology of the Central Nervous System and the Sense Organs. (Second year students.)

One hour lecture and one hour laboratory or recitation during the second semester.

During the first semester the class is trained in the anatomy of the brain. During the second semester the physiology of the central nervous system is studied. Emphasis is laid upon a reflex action, reaction time, localization of functions in cerebrum, motor and sensory tracts in central nervous system and physiological optics.

## 10. Advanced Physiology. (Elective.) Alternate years.

This course consists of a detailed study of special subjects in Physiology, and includes the reading of original investigations along lines to be assigned, and the performance of laboratory experiments. Each student electing this course is required to carry out a complete metabolism experiment.

## 11. Operative Physiology. (Elective.) Alternate years.

The object of this course is to acquaint the student with the more common operative procedure in physiological investigation. The following operations are performed on the dog: Gastric, biliary, and pancreatic fistulae, Eck's operation, splenectomy, thyroidectomy, nephrectomy, pancreatatomy, gastroenterostomy, colectomy.

## 12. Pathological Physiology. (Third year students.)

One hour lecture and one hour recitation during the first semester.

Among the subjects discussed are: Disturbances in the digestive secretions, starvation, overeating, obesity, disturbances in the metabolism of carbohydrates, fats and proteins, qualitative changes in metabolism, production of organic acids, disturbances in the secretion of bile, alkaptonuria, cystinuria,

pathological alterations in blood pressure, exudates, metabolism in fever anaemia and other pathological conditions.

# 13. Dietics and Nutrition. (Third year students.)

One hour lecture and one hour recitation during second semester.

The lectures treat the following subjects: Specific dynamic action of the different foods, calorific requirements, construction of a diet from the different articles of food, nitrogenous equilibrium, nutrition during the period of growth, inorganic foods, some mineral waters, accessories to food, influence of mechanical work upon metabolism, diets in some pathological conditions.

## 14. Physiological Conference. (Elective.)

Those who are interested are invited to meet at times to be announced to discuss informally selected problems in physiology, usually such as supplement instruction given in other ways. Problems under investigation in the laboratory are introduced for discussion.

# 15. Original Investigation. (Elective.)

Those who are qualified are encouraged to undertake research work. A reading knowledge of French and German is desirable.

Reference Books-Physiology: (Freshman): Howell.

(Sophomore): Tigerstedt.

Pharmacology: Tyrode.

Physiological Dietetics: Lusk, "Science of Nutrition." Pathological Physiology: Krehl, Pathological Physiology.

## MATERIA MEDICA AND THERAPEUTICS

Professor, Frederick John Kruell, Ph.G., M.D. Associate Professor, Reginald S. Petter, M.D. Associate Professor, Edward Douglass Jones, M.D.

1. First and second year students will receive instruction in the physical, chemical and pharmaceutical properties of remedial agents, pharmacodynamics, medical pharmacy, and the elements of prescription writing.

Two hours each week will be devoted to the above studies throughout the college year.

2. Third and fourth year students are instructed in the principles of therapeutics, applied therapeutics, and advanced prescription writing from a therapeutic standpoint, dietetics, and the therapeutic management of special diseases.

Three hours each week throughout the college year are devoted to the above studies.

Text Books-Hare; Shoemaker; Stevens; Potter; Sollmann.

#### PATHOLOGY

Associate Professor, Andrew Fremont Wagner, A.M., M.D. Instructor, Donald George Turnbull, M.D.

The complete course covers a period of three hundred sixty hours, extending through three full years, viz., Sophomore, Junior, and Senior, and consists of thorough didactic and laboratory work.

The didactic work consists of lectures, recitations and quizzes, with written examinations at stated periods, and the practical work consists of identification, study and drawing of microscopical specimens; the fixing, hardening, sectioning, staining and mounting of pathological tissues; the study of gross specimens, and the performance of autopsies at the County or other hospitals of this city.

The laboratories of the college are supplied with all the necessary equipments for instruction in this important branch of medicine, including a projectroscope, freezing, paraffin, and celloidin microtomes, Bausch and Lomb microscopes, etc., enabling the student to become familiar with all the routine work pertaining to this department.

Five courses are given:

1. General Pathology. This course is given to the Sophomore class throughout the entire year, and includes the subjects properly coming under this heading, viz., general causation of disease, circulatory disturbances, degenerations, inflammation, neoplasms, and parasitic diseases.

The didactic work is supplemented in the laboratory by the study of specimens, illustrating the pathologic conditions under discussion at the time in the lecture-room. As one subject after another is taken up systematically, the class is furnished by the department with specimens representing the particular lesions lectured on, which the students are required to study, and of which they make drawings. These drawings are taken into consideration in making up the final credits of each student. At the same time all the pathological material available is used in teaching the student to prepare, cut. stain and mount his own sections.

- 2. Special Pathology. This course is given to the Junior and Senior classes, thus giving the latter the benefit of a very thorough review of the whole subject of special Pathology as given in the Junior year. The various tissues and organs are taken up in order, and the pathological changes studied under general conditions before are now studied in their new relations and modifications.
- 3. Gross Pathology and Postmortem Work. This course is given to both Junior and Senior students, and consists of identification and study of diseased parts with the naked eye, and the various microscopical staining, and other reactions.

The technique of making autopsies is taught by demonstrations, and opportunity is afforded the students to assist in the performances of the work.

4. Postgraduate Course. This course will be given to postgraduates and others desiring to take up work along special lines in any department of pathology. In such a course may be included the work as outlined in Courses I, II and III, but with such limitations as to detail as will be necessitated by the amount of time available for the course.

Text Books: Stengel; Delafield and Prudden; Adams; Beattie and Dickson; Ziegler; Wells' Chemical Pathology.

## BACTERIOLOGY

Associate Professor, Andrew Fremont Wagner, A.M., M.D. Assistant, Dallas Case Ragland, M.D.

The whole subject of Bacteriology—general and special—is taught by lectures, quizzes, and laboratory instruction throughout the Sophomore year. A review is given in the Senior year.

- 1. The didactic work is thorough and complete, the first half of the course including the classification, physical and chemical structure of the bacteria in general, as well as the products of their biological activities, and particularly the antibodies, the opsonic substances, and the theories of infection and immunity relating to the various pathogenic microorganisms, while the second half of the course covers the identification, the staining, cultural and other biologic characteristics of the various species of pathogenic bacteria, as well as of the pathogenic protozoa, yeasts and moulds.
- 2. The laboratory work is comprehensive, and aims to be as practical as possible. The student is made familiar with approved methods of technique by requiring him to actually perform the work done in bacteriological laboratories, from the preparation of staining fluids and of culture media to the cultivation and inoculation of the different organisms.
- 3. The review, by quizzing, of the subject in the Senior year enables the student about to graduate not only to refresh his memory in the details of this important appartment of the study of disease, but affords an opportunity of presenting to him any new facts that may be developed from year to year in this rapidly growing subject.
- 4. A course in Serology is given to both Junior and Senior classes and consists of lectures, quizzes and practical work in the laboratory. During the year the subject of immunity, with its various phases, is very thoroughly gone into and the methods of determining the opsonic index, preparation of autogenous bacterins, and the compliment fixation test, as

applied to the detection of syphilis by Wassermann and Nogouchi, are each explained and demonstrated. All serum reactions and tests at present in vogue for the detection of disease are demonstrated and taught, in so far as is consistent with the present consensus of medical opinion.

Text Books: Park's Pathogenic Bacteria and Protozoa; Jordan's General Bacteriology; Muir and Ritchie (107 Edition) and MacFarland's Pathogenic Bacteria.

#### MEDICINE

Professor, Thompson B. Wright, A.M., M.D.
Professor, Sylvester Gwaltney, A.M., M.D.
Associate Professor, Henry Herbert, M.D.
Associate Professor, Louis Weber, B. S., M.D.
Associate Professor, Charles C. Browning, M.D.
Assistant Professor, Edward William Hanlon, M.D.
Instructor, Earle M. Brown, B.S., M.D.
Instructor, Harvey Smith, M.D.
Instructor, William Elmer Carter, M.D.
Instructor, Francis Earl Brown, A.B., M.D.

1. During the Junior year a series of didactic lectures will be given, of a thoroughly practical nature, embracing a critical study of internal diseases generally, including diseases caused by parasites, infectious diseases, constitutional diseases, and the diseases grouped according to the organs affected, such as: Diseases of the lungs, heart and arteries, of the the liver, of the stomach and intestines, of the pancreas, of the kidneys and spleen and lymphatic system, of the blood and of ductless glands.

Especial attention will be given to the study of etiology, bacteriology, pathological signs and symptoms, diagnosis, prognosis, and treatment of each disease, and the lectures will be amply followed up and illustrated by patients drawn from the various clinics in connection with the College and

County Hospital; also by the use of pathological specimens from the College Museum, and by the use of suitable charts, etc.

The student will be given special instruction in the application of anatomical knowledge to the investigation of the disease, the methods of examining various organs and parts, to detect evidence of disease, the mode of employment of instruments and apparatus used in diagnosis, treatment prescribed, and applied therapeutics.

2. The Department of Physical Diagnosis has been incorporated with the Department of Medicine, and instruction in this branch is directly taught by an Associate Professor of Medicine, so that it can be more readily condensed with the other work in the department.

The mode of instruction in this Department of Medicine is based chiefly upon clinical, practical training at the bedside, comprising anamnesis, status presens, pathology, diagnosis and differential diagnosis. In the Junior year practical instruction is given twice a week at the Los Angeles County Hospital two hours each week, and one hour didactic lecture at the College.

For the proper conception of the abundant and interesting clinical material offered the Junior class, a proper training in auscultation and percussion is a condition sine qua non. Cases are brought before the class with a complete history taken by one of the students and then demonstrated and discussed.

During the year each student is required to furnish in writing three complete history reports of patients, and at the end of the year to pass an oral and practical examination at the bedside. This constitutes an essential item in the markings on final examinations.

3. During the Senior year clinical microscopy is taught by didactic and socratic instruction—together with practical demonstrations of the latest and best laboratory methods. This course comprises the most approved methods of examining the urine, chemical and microscopical examination of the blood, sputum, and gastric contents, as well as the morbid

products and secretions of disease, also the latest methods of serum diagnosis. The hospital service is utilized and the course so arranged that the student may receive the benefit of a personal examination of the patient in connection with laboratory work necessary for the elucidation of the case.

4. The Junior and Senior classes receive systematic instruction in the practice of medicine at the bedside. Ward and observation classes are formed, as these conference classes have proved a success and represent a great improvement over the old method of clinical lectures. Each case is carefully studied by the students, who prepare reports upon that portion of the case to which they have been assigned. These reports are read in class and discussed, after which the professor in charge draws attention to errors and directs the students in correctly interpreting the data collected. The conference closes with a brief review, during which important points are accentuated and peculiar ones noted.

Most excellent clinical facilities are afforded at the Los Angeles County Hospital with its 500 beds. The recent establishment of a regular visiting staff having absolute charge of the patients, opens up new opportunities for the close study and treatment of disease in this institution. Our students have constant access to the wards, giving them the opportunity to obtain at first hand that knowledge of disease which can only be acquired through intimate contact with the patient.

Each student is required to submit complete case reports on a number of cases during the year.

5. Tropical Medicine is taught in the Senior year and comprises one recitation weekly.

Recognizing that a knowledge of natural history is essential to a thorough understanding of the causative factors in the production of tropical diseases, the student is taught to construct analytic outlines of the various parasites and their associated diseases, special attention is given to the etiology, pathology, symptomatology, diagnosis, prognosis and treatment, and the most approved methods of prophylaxis.

During the year clinical instruction in tropical diseases is given at the County Hospital.

Text Books—Diagnosis: Osler; Butler; Anders; Emerson; Boston; Cabot's Diseases of the Blood; Todd's Manual of Clinical Diagnosis; DaCosta.

Practice: Anders; Osler; Kelly; Tyson; Manson; Jackson. Collateral Reading and Reference: Krehl's Pathological Physiology; Hammarstein's Physiological Chemistry; Cushney's Pharmacology; Potter's Materia Medica and Therapeutics.

#### PEDIATRICS

Professor, Francis Oliver Yost, M.D.

The course in diseases of children consists of lectures, recitations and clinics, during the third and four years. In the lectures special attention is devoted to the subject of infant feeding, and the infectious diseases of childhood. The clinical course familiarizes the student with the symptomatology of the common diseases of children.

In the recitations a special effort is made to impress the practical points of diagnosis and treatment.

Text Book: Holt.

Collateral Reading: Koplik; Rotch; Jacobi; Cotton; Fischer; Corlett; Graetzer; Ruhrah; Kerr; Kerleys; Pfaundler and Schlossman.

## SURGERY

Professor, James Harvey Seymour, M.D. Professor, Orville O. Witherbee, M.D. Associate Professor, John Jay Still, M.D.

This department embraces didactic and clinical instruction, extends throughout the Sophomore, Junior and Senior years, and consists of four courses.

- 1. Minor Surgery, the art of bandaging, the application of surgical dressing and the use of anaesthetics are taught, two hours per week, during the Sophomore year.
- 2. Fractures and Dislocations is taught one hour per week in the Junior class.
- 3. Orthopedic Surgery is given throughout the Junior and Senior years, and consists of one hour per week, didactic work, with extensive clinical demonstration.
- 4. Three hours per week, didatic work at the College four hours per week, clinical work at the County Hospital, and daily clinics at both the College Dispensary and Down Town Clinic are given throughout the Junior and Senior years in Surgery. In the Junior year the principles underlying surgical procedures and governing surgical diseases, together with a thorough grounding in surgical pathology, are considered. Clinical instruction is begun by the Junior student and he is given ample opportunity to witness all the major and minor operations. Many opportunities are afforded the Senior Class to witness, at close range, operations in the many hospitals with which Los Angeles is so bountifully provided. Every effort indeed is made to familiarize the student with the practical application and modern surgical procedures, to the end that he may be fully equipped to meet any and all emergencies within the domain of surgery.

Text Books: DaCosta; Wyeth; Lexer-Bevan; Scudder's Treatment of Fractures; Stimson on Fractures and Dislocations.

Operative Surgery: Bryant; Bickham; Treaves. Minor Surgery: Foote.

## GYNECOLOGY AND ABDOMINAL SURGERY

Professor, Charles William Bryson, A.B., M.D.
Associate Professor, William Harriman Jones, A.B., M.D.
Lecturer, Henry E. Southworth, M.D.

Instruction in this department will be didactic and clinical, comprising lectures, recitations, quizzes, dispensary and hospital clinics, and minor and major operations, before members

of the Junior and Senior classes, and will continue throughout the Junior and Senior years. In the Clinical Department students will be divided into small classes, the better to enable them to witness closely the technique of all operations.

Students will be required to examine, diagnose and treat patients in the presence of the professor in charge, in order to become proficient in gynecological diagnosis and treatment. In thus bringing the student in close personal relation with a large number and variety of cases, he familiarizes himself with the different methods of examining patients, and at the same time he becomes accustomed to making diagnoses and formulating treatment, as well as witnessing closely and assisting at all of the minor and major operations in gynecology and abdominal surgery. Diseases of the bladder and urethra will be thoroughly covered in this department and their medical and surgical treatment outlined and demonstrated. Methods of inspection and examination will be taught by the use of charts and manikins, as well as upon the living subjects. The practical manipulation and use of the cystoscope will be shown first upon bladder phantoms, then upon the living subject in the Clinical Department. A thorough theoretical as well as practical knowledge of gynecology and abdominal surgery in its broadest scope is a prerequisite to graduation from this College, and every opportunity will be afforded the student to prepare himself for the arduous duties that will come to him in his professional career.

Text Books: Dudley; Gilliam; Montgomery; Ashton; Reed; Penrose; Hirst; Possi; Byford; Garrigues; Crossen; Kelly's Operative Gynecology; Surgical Diseases of Abdomen, by Douglas; Abdominal Operations, by Monynihan.

## **OBSTETRICS**

Professor, Walter Sydney Johnson, A.B., M.D.

1. Instruction in Obstetrics is begun in the third year, and is carried on by means of didactic lectures, recitations and demonstrations, upon the manikin and living subject; by the use of charts, wet and dry specimens, models and pelves.

The subject matter during this year embraces the anatomy of the pelvis, physiology, and development of the ovum, normal pregnancy, normal labor and normal puerpery.

Two hours a week are given to lectures and recitations throughout this year.

2. Lectures and recitations are continued during the fourth year, at which time the complications and difficulties liable to be encountered in the practice of the science and art of obstetrics are successively considered, viz., abnormal pregnancy, dystocia, and abnormal puerpery.

Special attention is given to asepsis, external palpation, pelvimetry, the use of forceps, and the different obstetric operations.

Students during this year, in addition to the above, are expected to attend one or more cases of labor, under the supervision of the Professor of Obstetrics. The maternity wards of the County Hospital and the many charitable cases coming under the care of this department afford ample material for practical demonstration, thus giving the student a thorough working knowledge of the subject.

Text Books: Williams; Edgar; American Text Book; Hirst; Wright.

## **OPHTHALMOLOGY**

Professor, Thomas Jefferson McCoy, M.D.

Associate Professor, George Washington McCoy, A.M., M.D. This course on diseases of the eye will consist of one didactic and two clinical lectures each week, giving practical instructions on the eye in general, the recognition, differentiation and treatment of the common, as well as the complicated diseases and injuries, teaching the recognition of diseases in the eye as diagnostic of disease in remote organs, the principles and the use of the ophthalmoscope and clinical instructions on refraction. Ample material is available at the hospitals, college and outdoor clinics.

Text Books: May; Fox; Jackson; De Schweinitz; Ball or Fuchs.

## OTOLOGY, LARYNGOLOGY AND RHINOLOGY

Professor, William Leander Zuill, M.D. Associate Professor, George Jesse Lund, M. D.

This subject is taught by lectures, recitations, reviews and clinical instructions, consisting of two hours per week of diadactic work and three hours per week of clinical work in the College Dispensary, Down Town Clinic and County Hospital.

This course of special work comprises the latest and most modern methods in technique, and particular pains are taken to make the student perfectly familiar with the practical side of the diseases of these organs as presented in our regular clinics at the College Dispensary, Down Town Clinic and County Hospital.

Special attention is given: First—To the Anatomy and Physiology of the Ear, Nose and Throat, and Accessory Sinuses. Second—Methods of Examination. Third—General pathological conditions. Fourth—Special diseases of the organs. Fifth—Diseases of Accessory Cavities. Sixth—Neoplasms. Seventh—Operations.

Text Books: Bishop, on Diseases of Nose, Throat and Ear, third edition; Kyle, Diseases of Nose and Throat; Coakley, on Diseases of Nose and Throat.

## NERVOUS AND MENTAL DISEASES

Professor, James Tucker Fisher, M.D. Assistant Professor, Thomas James Cummins, M.D.

The course in Neurology, Phychiatry and Neuro-Pathology consists of lectures and clinics at the College Dispensary, Down Town Clinic, County Hospital and Soldiers' Home each week during the third and fourth years.

The clinical course familiarizes the student with the common disturbances of the nervous system and some of the more important mental diseases. The detention of the insane at the County Hospital, before commitment to the State Hospital for the insane, allows the student to see many forms of insanity.

Text Books: Dana; Starr; Mettler; Outlines of Psychiatry by William A. White.

#### STATE MEDICINE AND HYGIENE

Lecturer, H. Wilson Levengood, M.D.

Two hours each week during the Junior and Senior year will be devoted to instruction in this important branch of medicine. Hygiene as applied to preservation of health and prevention of disease will be thoroughly illustrated, especial attention being given to the pure food law, state, national and interstate control of pure foods and drugs, adulterations, dilutions, labeling, etc.

School-room and military (camp) hygiene will receive especial consideration.

A full course in hygiene of air, soil, water, climate, food and diet; food supply, food diseases and adulterations; heating, lighting and ventilating of dwellings; municipal sanitation and water supply, sewage and drainage, disposal of refuse; in fact, every department in connection with preventive medicine and sanitary laws, will be given.

Text Books: Parkes; Egbert; Bergy.

## **ELECTRO-THERAPEUTICS**

Instructor, Louis Weber, B.S., M.D.

Lectures will be delivered and recitations held during the Junior and Senior years covering the history of electricity, the different currents in use, and their application to practical therapeutics. The ground covered shall comprise knowledge of apparatus, currents employed, and technique of treatments, electro-diagnosis, magnetism, Roentgen rays, light and high-frequency therapy, and other allied subjects.

The latest electrical apparatus for practical clinical demonstration of all forms of electricity has been installed.

Text Books: Rockwell's Medical and Surgical Electricity; Massey's Treatment of Diseases by Galvanic and Faradic Electricity; Pussey's Caldwell on Roentgen Rays in Therapeutics and Diagnosis; Moneil's Static Electricity and X-Ray for Therapeutic Use.

#### GENITO-URINARY DISEASES

Associate Professor, Warren Nichols Horton, M.D.

This course comprises a series of lectures and clinical demonstrations throughout the Senior year, and is limited to Senior students.

In the didatic course, the anatomy, histology, embryology and physiology of the entire genito-urinary tract is reviewed, such time being spent on this as to insure a thorough knowledge of the fundamental principle of this subject, and then the diseases of the various organs are taken up separately, special attention being given to the pathological changes and their diagnosis.

The operative proceduces are taught on the cadaver, and the students are required to go through the various steps of each operation under the guidance of the instructor.

The diagnosis is gone into with each pathological condition as it is being studied, but preliminary to this, special instruction is given in palpation and percussion and various other methods pertaining to genito-urinary diseases in general, individual instruction being given in the use of the cystoscope, urethoscope and catherterising ureters ,etc.

These lectures will be illustrated by a series of clinical demonstrations upon material from the College Clinic and at the County Hospital.

No one text book is followed in the course, but the students of the branch are recommended to buy various texts, and thereby the class has the advantage of the different authors writing on this subject.

Works recommended: Casper; Kreissel; Fynger; Corner; Keyes; White and Martin; Morrow's System; Deaver's Diseases of the Prostate Gland; and various texts on Anatomy, Histology and Embryology used in other departments of the school.

#### DERMATOLOGY

Associate Professor, Anstruther Davidson, C.M., M.B., M.D.

Dermatology, embracing within its scope Syphilography, has been taken from the Department of Genito-Urinary Diseases and placed in a separate department.

This course embraces one hour each week throughout the Senior year. The subject matter covered will be the histopathology and bacteriology of the skin, relations of diseases of the skin to other diseases and to other organs, embracing also patho- and radio-therapy, disorders of the glandular system, inflammations, hemorrhages, atrophies and hypertrophies, new growths, neuroses, parasitic affections, etc., etc., will be taken up, and the latest methods in etiology, diagnosis and treatment will be carefully outlined.

Syphilis, its effects, direct and remote, upon healthy and diseased organs, together with the most modern methods of diagnosis and treatment, will be covered thoroughly during the year.

Text Books: Lydston; Jackson; Stellwagon.

## MEDICAL JURISPRUDENCE

Lectures will be given on the following subjects: Legal relations of physician to patient and patient to physician, including rights to compensation, collection of fees, malpractice; legal relations of physician to government, including government regulation of practice, power to protect public health, nuisances and their abatement, adulteration of foods; elementary general principles of law, knowledge of which frequently is required by and useful to physicians, including wills, estates of insane and deceased persons, crimes of violence, rights of children, negligence; legal aspects of mental disorders and diseases, including testamentary capacity, criminal responsibility of insane, alcoholism and drug addictions, legal incompetency to contract, care for and custody of insane;

property rights of insane; personal injuries by violence (a) in civil damage cases, and (b) in criminal cases, including rules of evidence, medico-legal inspection, autopsies (a) to ascertain cause of death, and (b) to obtain evidence of manner of infliction, suicide; toxicology, sex perversions, pregnancy, disease and divorce; life and accident insurance; expert and opinion evidence, including the medical witness, his position, rights and duties.

Efforts will be made in this department to familiarize students with the proper methods of practice and procedure in all matters wherein the practitioner of medicine is likely to come in contact with the law or the governments, and especially in that large class of cases where accurate knowledge of legal requirements is called for upon the instant. The lack of such knowledge frequently has enacted great embarrassment, both to the courts and to the medical profession.

Text Books: Taylor; Witthaus and Becker, Forensic and Medicine Toxicology.

# HISTORY OF MEDICINE AND MEDICAL BIBLIO-GRAPHY

Lecturer, Peter C. Remondino, M.D.

Dr. P. C. Remondino delivered, during the session of 1910-11, a series of lectures to the entire student body upon that most interesting and instructive topic, History of Medicine and Medical Bibliography. This subject has been added to and made a part of the curriculum of this College. Dr. Remondino has been selected to present this course, he being a man of finished scholarly attainments, and his inherent ability, together with his broad and comprehensive knowledge of this subject, the results of a lifelong study and research into the seemingly impenetrable mysteries of the history of medicine, is an evidence of his peculiar fitness to make this course interesting and instructive. Dr. Remondino will endeavor to make this course an epitome of the general History of Medicine, taking up probably first the history of Aboriginal Medicine, then the Egyptian and Hindoo periods,

to be followed by the Ante-Hippocratic Greek medical period. Then will follow the Hippocratic and Alexandrian, the Roman and the Arabian, with the period of rennaissance in Europe in the Sixteenth Century. In fact, a review of Medicine from the earliest possible obtainable history down to and including the present, will be given.

The above outline of the course will suffice to call the attention of the student along these lines to the opportunities offered here in this too oft neglected department. We believe that the broad-minded, up-to-date medical man should know at least something of the history of his profession.

## COLLEGE OF LAW

#### CALENDAR

#### 1911-1912

Sept. 11-16	Entrance Examinations.
Sept. 18-19	Registration for first semester.
Sept. 20	Instruction begins.
Nov. 30	Thanksgiving vacation.
Dec. 18	Christmas vacatinn begins.
	1912
Jan. 2	Christmas vacation ends.
Feb. 1-3	Mid-year examinations and regis- tration for second semester.
Feb. 5	Second semester begins.
Feb. 22	Washington's birthday.
May 30-June 12	Final examinations.
June 13	Commencement.
The College of Law, University of Southern California, is a member of the Association of American Law Schools.	

## ADMISSION TO FRESHMAN CLASS

Applicants for admission to the Freshman year must be at least 18 years of age; must furnish two certificates of good moral character; and must pass satisfactory examinations as hereinafter prescribed, unless otherwise qualified to be admitted.

Graduates of high schools maintaining a four years' course of study or other educational institutions whose course is equivalent to such a high school course, are admitted without examination. Certificates of graduation should be presented.

Other applicants are required to pass satisfactory examinations in each of the subjects of one of the regular four-year high school courses.

In special cases the Dean has authority to admit as a special student an applicant who has not the required educational qualifications. Such admission, however, is conditional upon the applicant making up such deficiency before he enters the Senior year.

#### ADMISSION TO ADVANCED STANDING

Applicants for admission to the Junior or Senior classes must present certificates of the completion by them of work equivalent to that for which they seek to be credited. Certificateswill be accepted when issued by a law school belonging to the Association of American Law Schools, or other colleges of law whose requirements are as high and whose course is as extensive as that here given. Applicants for advanced standing not having such certificates must pass examination in the subjects for which they seek credit, but any student who desires to take such an examination must first secure permission to do so from the Dean.

Such examinations are given only at the beginning of a semester. A charge of two dollars is made for each special examination.

The school reserves the right to reject any applicant.

Any student displaying a deficiency in English and diction may at any time be required to take instruction in the class of Expression.

The school reserves the right to expel any student whenever the Board of Control deems it necessary for the welfare of the Law School, and to suspend any student or use other methods of discipline, whenever deemed advisable by the Dean.

The school also reserves the right to refuse to register any applicant or student.

#### SPECIAL EXAMINATIONS

Any student taking the regular course who desires to omit class attendance on any subject and to take a special examination thereon, shall file in the office a petition asking for the privilege and stating the student's reason therefor. The petition is referred to the Dean. If the permission is granted, a special examination may be given. Such examinations and all examinations for advanced standing, are given at the beginning of a semester, and are passed upon by the instructor teaching the subject. Passing grade upon all such examinations is 85%.

#### COURSE OF INSTRUCTION

The method of instruction is a combination of the lecture, text-book and case systems, with practical experience in briefing and pleading.

The purpose of this college is to impart a sound and thorough legal education and to qualify students for admission to practice in all the courts not only of this, but of any other state, and in the Federal Courts.

Attention is called to the fact that courses are given in Briefing and the Use of Books. In addition to the briefs required in Moot Court work, the members of the Faculty assign subjects for briefs in connection with their respective classes.

The course of study, covering a period of three years, leads to the degree of LL.B.

The Graduate course of one year leads to the degree of LL.M.

All regular students of the law department are entitled to four hours of instruction per week in the College of Liberal Arts without additional cost.

## THE DEGREES OF A.B. AND LL.B.

When a student in the College of Liberal Arts has received 94 semester credits (including all prescribed work) and of these has taken not less than 72 in the College of Liberal Arts

of the University of Southern California, he may enter the College of Law, and may receive the degree of Bachelor of Arts upon the satisfactory completion of two years in the professional course.

#### PRE-LEGAL COURSE

It is important that the student be thoroughly prepared before commencing the study of Law. It is, therefore, recommended that he take the three years in the College of Liberal Arts before entering the College of Law. Special consideration should be given to the following subjects: English (including Expression), Latin (at least two years if not covered by entrance credits); History (English and American), with special reference to Institutional and Constitutional; Logic, Philosophy, Economics and Political Science.

#### ADMISSION TO THE BAR

Graduates of the University of Southern California, College of Law, are admitted to the bar upon motion and without examination.

## SCHOLARSHIP CONTESTS

A scholarship is given to that member of the High School Graduating Class of 1911 writing the best thesis. Full information concerning this contest may be secured by addressing the Law School.

## ALUMNI MEDAL

This prize is an unusually elaborate gold medal, which is presented each year at commencement to that member of the graduating class who shall have maintained the highest general average in scholarship throughout the whole College course. This medal was awarded in 1910 to Chas. L. Bagley.

#### DEBATING CLUBS

The Freshman Debating Classes are under the supervision of the College, and attendance at seventy per cent of the meetings is compulsory on all regular students of the Freshman Class. The Dean of the College of Oratory directs the work.

The Lyceum is a club having a restricted membership, and is composed of members of the Junior and Senior Classes.

A debating contest in which all regular students are eligible to participate, is conducted each year. Those securing first, second and third places receive handsomely engraved certificates and make up the First Debating Team to represent the College of Law in contests with other institutions. The subject of the try-out debate for the year 1910 to 1911 was:

"Resolved, that band deposits should be quaranteed by the State Government, constitutionality of the legislation providing therefore being conceded." It was held December 12th, 13th, 14th and 15th, 1910.

#### ORATORICAL ASSOCIATION

The Law School Oratorical Association is organized for the purpose of stimulating interest in oratory.

Occidental College, Pomona College, Whittier College and the University of Southern California compose an Oratorical Association. Students of the Law Department are eligible as representatives of the University in the contests.

A cash prize of \$75 is awarded the winner of the local tryout; \$15 is awarded the contestant taking second place, and \$10 is given the one taking third place.

A contest is also held between representatives of the same Colleges, called the Peace Oratorical Contest. A cash prize of \$100 is awarded the winner of the Inter-Collegiate event.

## FRATERNITIES

The two legal fraternities, Phi Delta Phi and Delta Chi, have chapters here.

A petition has been filed for a chapter of the Phi Alpha Delta fraternity.

#### **ATHLETICS**

Regular students of the Junior and Senior years of the College of Law take part in all Inter-Collegiate athletic events. The Law School has separate baseball, basketball and football teams. Although athletics have not been established long in the Law School, during the past year our teams have ranked with the best representatives of the other colleges of Southern California. It is expected that during the coming year much progress will be made in this department.

#### FEES AND EXPENSES

An entrance fee of \$10.00 is required upon registering.

Tuition fees for the day school are \$42.50 per semester.

Tuition fees for the Night School are, for the Freshman year, \$25.00 per semester, and for the last three years of the Night School \$35.00 per semester.

The student body assessment is \$2.00 per semester, and is paid upon registration.

Failure to pay fees when due debars from the class room. Students who are compelled to withdraw from school on account of sickness, will have a part of their tuition refunded upon application.

Address all communications to

FRANK M. PORTER, Dean,

College of Law, University of Southern California,

Exchange Bldg., Los Angeles, Cal.

## CURRICULUM

In addition to the following, special lectures are provided during the year upon subjects which though not really required in a legal course, are yet of much value to those desiring a well rounded knowledge of the law.

Unless otherwise specified the method of instruction is by text-book and selected cases.

On account of the large number of students enrolled, the classes are divided into several sections. These meet at different times of the day so that students may select a section to suit their own convenience.

The duration of each period specified below is one and one-half hours.

#### FIRST YEAR

#### First Semester

Contracts (Two Periods)	Clair E. Tappaan
Criminal Law (Two Periods)	Vincent Morgan
***************************************	Percy V. Hammon
Elementary Law and Blackstone	(Three Periods)
***************************************	Gavin W. Craig
Torts (Two Periods)	Kemper B. Campbell
Bailments (Two Periods)	Frank M. Porter
Use of Books	T. W. Robinson

## Second Semester

Contracts (One Period)	Clair S. Tappaan
Criminal Procedure (Penal Code and Selected Cases (One	
Period)Frank R. Willis	and Percy V. Hammon
Torts (Two Periods)	Kemper B. Campbell
Personal Property (Two Periods)	Frank M. Porter
Negligence (One Period)	Wm. P. James
Agency (One Period)	Lewis A. Groff
Moot Court (One Period).	

# SECOND YEAR

## First Semester

Wills (Two Periods)Frank M. Porter
Common Law Pleading (Two Periods)H. C. Dillon
Private Corporations (One Period)Frederick W. Houser
Real Property (Two Periods)Gavin W. Craig
BriefingT. W. Robinson
Equity Jurisprudence (Two Periods)Chas. C. Montgomery
Constitutional Law (One Period)W. A. Cheney
Moot Court (One Period).
Second Semester
Private Corporations (One Period)Frederick W. Houser
Equity Jurisprudence (Two Periods)Chas. C. Montgomery
Real Property (Two Periods)Gavin W. Craig
Commercial Paper (Two Periods)Clair P. Tappaan
Partnership (One Period)Clair S. Tappaan
Justice Court Practice, Code of Civil Procedure of Cali- fornia and Lectures (One Period, Part of Semester)
Patents (Lectures, One Period, Part of Semester)
Statutory Interpretation (One Period)T. W. Robinson
Constitutional Law (One Period)W. A. Cheney
Lectures and Selected Cases (One Period).
Water Rights and Irrigation Law (One Period)
Guaranty and Suretyship (One Period, part of Semester)

Moot Court (One Period).

## THIRD YEAR

## First Semester

Code Pleading (Two Periods)	James G. Scarborough
Evidence (Three Periods)	Frank M. Porter
Public Corporations (Two Periods)	Walter F. Haas
Equity Pleading (One Period)	Chas. C. Montgomery
Mining Law (One Period)	Lewis A. Groff
Legal Ethics (Lectures)	John D. Pope
Insurance Law (Twelve Lectures)	Seward A. Simons
Moot Court (One Period).	

## Second Semester

Code Pleading (Code Civil Procedure and Text Book,

. – ,
James G. Scarborough
Gavin W. Craig
Frank M. Porter
Kemper B. Campbell
Chas. C. Montgomery
W. T. Craig
Frank James
E. W. Tuttle
)George H. Hutton

# NIGHT SCHOOL

In response to a general demand for night classes in law, a Night School was established at the beginning of the year 1908-1909. The night course consists of the same subjects as the day course, but requires four years for completion. The instructors are the same as those of the Day School. Students may take as many or as few subjects as they desire, and one may complete the course by taking two years in Night School, two Summer Schools, and the third year with the regular day Senior Class. Graduates of the Night School receive the degree of Bachelor of Laws (LL.B), and under the laws of the State of California are admitted to the Bar without examination.

#### CURRICULUM OF NIGHT SCHOOL

#### FIRST YEAR

## First Semester

Contracts (Two Periods)	Clair S. Tappaan
Criminal Law (Two Periods)	Vincent Morgan
Elementary Law and Blackstone	(Two Periods)
***************************************	Gavin W. Craig
Torts (One Period)	Kemper B. Campbell
Agency (One Period)	Lewis A. Groff

## Second Semester

Contracts (One Period)	Clair S. Tappaan
Criminal Procedure (One Period)	
Elementary Law and Blackstone (Two	
***************************************	Gavin W. Craig
Torts (Two Periods)	
Bailments and Carriers (Two Periods)	

# SECOND YEAR

## First Semester

Negligence (One Period)William P. James Private Corporations (One Period)Frederick W. Houser Water Rights and Irrigation Law (One Period)	
Gavin W. Craig	
Wills and Probate Law (Two Periods)Frank M. Porter	
Justice Court Practice (One Period, Part of Semester)	
Albert Lee Stephens	
Patents (One Period, Part of Semester)James R. Townsend	
Use of Books (One Period, Part of Semester)	
T. W. Robinson	
Second Semester	

Personal Property (One Period)Frank M. Porter
Commercial Paper (Two Periods)Clair S. Tappaan
Partnership (One Period)
Statutory Interpretation (One Period)T. W. Robinson
Common Law Pleading (Two Periods)H. C. Dillon
Private Corporations (One Period)Frederick W. Houser

# THIRD YEAR

## First Semester

Domestic Relations (Two Periods)Vincent Morgan
Evidence (Three Periods)Frank M. Porter
Real Property (Two Periods)Gavin W. Craig
Equity Jurisprudence (One Period)Chas. C. Montgomery

# Second Semester

Real Property (Two Periods)	Gavin W. Craig
Evidence (Three Periods)	Frank M. Porter
Equity Jurisprudence (Two Periods)Char	s. C. Montgomery
Bankruptcy (One Period, Part of Semester)	W. T. Craig

#### FOURTH YEAR

#### First Semester

Code Pleading (Two Periods)James C. Scarborough
Mining Law (One Period)Lewis A. Groff
Public Corporations (Two Periods)Walter F. Haas
Insurance (Twelve Lectures)Seward A. Simons
Guaranty and Suretyship (One Period)Wm. N. Phelps

#### Second Semester

Code Pleading (Two Periods)James G. Scarborough
Senior Real Property (Three Periods)Gavin W. Craig
Equity Pleading (One Period)Chas. C. Montgomery
Damages (One Period)Kemper B. Campbell
Legal Ethics (Three Lectures)John D. Pope
California Lien Law (Five Lectures)Frank James
Appeals (Three Lectures).
Admiralty (Eight Lectures)

## GRADUATE COURSE

A Graduate course of one year is given. The degree of Master of Laws (LL.M) is conferred upon those who have previously received the degree of Bachelor of Laws (LL.B.) from any Law School which is a member of the Association of American Law Schools or from any other approved Law School maintaining a three-year undergraduate course, on completion of an approved course of graduate study equivalent to ten yearly periods.

The following is the course of study leading to the degree of Master of Laws (LL.M.):

Trusts (Six	teen Lectures)	William W. Phelps
Internation	al Law (One Period)	Willoughby Rodman
Spanish an	d Mexican Land and	Mining Law (Twelve
Lecture	es)	Warren E. Lloyd

Interstate Commerce (Twelve Lectures)E. W. Camp
Codification (Twelve Lectures)William W. Phelps
Extraordinary Legal Remedies (Sixteen Lectures)
Curtis D. Wilbur
Public Officers (Ten Lectures)Walter F. Haas
Conflict of Laws (Thirty Lectures)E. W. Tuttle
Mortgages (Four Lectures)J. W. Swanwick
Logic (One Period)James Harmon Hoose
Fraternal Insurance (Six Lectures)
Trusts and Monopolies (Eight Lectures)Arthur P. Will
Treaties (Six Lectures)Arthur P. Will
Medical Jurisprudence (Ten Lectures)Carlos S. Hardy

#### ATTENDANCE AND SCHOLARSHIP

Attendance at ninety per cent. of the lectures and recitations is required for promotion or graduation.

Examinations are given at the end of each semester. A grade of seventy-five per cent. on examination and daily work, in each subject, is required for promotion or graduation.

Persons who are not studying for a degree may enter the College of Law at any time as special students and may pursue such studies as they desire. This provision is made especially for the aid of those seeking or holding positions of trust in banks and other business institutions.

# PUBLIC SPEAKING, VOICE BUILDING AND EXPRESSION

A course in Public Speaking, Voice Building and Expression is offered by Miss Beulah Wright, Dean of the College of Oratory, University of Southern California.

The course is designed to meet the needs of the students of the Department of Law. The work is of the most practical character.

It is the aim to teach a student to be simple and natural in his expression and when occasion shall demand, powerful but at all times to preserve his individuality. A great deal of stress is laid upon the development of the voice for purity, flexibility, and control.

Most of the work done in classes is of an extemporaneous nature, such as short talks on current public questions, argumentation and debate. Attention is also given to the study and deilvery of great orations, as well as the preparation of original orations.

Students doing work in these classes may receive credit in the College of Oratory to apply upon either the Diploma Course or the Certificate Course. It is possible for a student to complete one of these courses during his three years' work in the College of Law.

#### SUMMER COURSE

During each summer school is conducted in a limited number of subjects which are taught by the regular teachers. During the summer 1911 the subjects will be as follows:

Senior Real Property.

Wills and Probate Law.

Bailments and Carriers.

Equity Pleading.

Criminal Law.

Partnership.

Common Law Pleading.

The Summer School lasts about nine weeks. In Summer School the student does not study more than one or two subjects at a time. It affords an opportunity for those who expect to earn a part, or all, of their expenses while going through school to lessen the amount of study required for the following year. It furnishes an opportunity for those who have failed in any subject to make it up, and it also provides those who are irregular because of having taken a part of their course in some other Law School, or for any other reason, a way to make up back work.

Tuition for Summer School is charged by the subject. Most students take two subjects, for which the entire charge is from \$15.00 to \$20.00. This is not deducted from the regular tuition.

#### COURTS

The Supreme Court of the State holds two sessions each year in Los Angeles, and the students have opportunity to hear carefully prepared arguments by the ablest lawyers of the country, and are required to attend Court not less than ten days each semester.

The United States Circuit and District Courts are held here and opportunity for study of the Federal practice and procedure is thus offered, on both law and equity sides.

The Appellate Court for the Southern District of California holds its session in Los Angeles.

The Superior Court of Los Angeles County, consisting of twelve departments, is in session the entire year.

Four city Police Courts and four Township Justice's Courts, in which students in the Middle and Senior years can get some actual practice before admission to the bar, are in session daily during the entire year.

## LIBRARY

Students are allowed the use of the Los Angeles County Law Library, consisting of twenty thousand (20,000) volumes, upon the same terms as members of the bar.

The College of Law has a good working library of its own, consisting of State Reports, the Reporter System, Text and other case books, numbering in all 3,000 volumes.

## MOOT COURTS

Students of the Freshman Class in the second semester, and members of the second and third year classes, are assigned not less than two cases during each semester, which they are required to conduct through the Superior Court, and one of which must be taken up on appeal through the Appellate or Supreme Courts. Controversies are arranged and assigned upon statements of facts for trial.

All of the steps incident to a contested trial are taken, including preparation of pleadings, argument of motions and

demurrers, preparation of briefs, taking of depositions, impanelling of jury, challenges, introductions of evidence, argument of case, etc.

Students of the First and Second years act as witnesses, client and jurors. These trials are presided over by a member of the Faculty and are conducted as nearly as possible in the same manner as trials in actual courts. Each student in the First and Second years must write at least three briefs which are examined and graded by the Judge of the Moot Court.

The Moot Courts consist of the Justice's Court, Superior Court, the Court of Appeal and the Supreme Court. The procedure conforms to that of the State of California with pleadings under the Code. Sessions of the courts are held weekly. A student acts as clerk of the Moot Court, and is at the Law School throughout the day.

Such a course of practical training is of inestimable value to one who intends to locate in California, or in any of the Western Code states.

Those desiring further information relative to the College of Law may obtain it by writing for its special announcement.

# COLLEGE OF DENTISTRY

# **CALENDAR 1911-1912**

October 3	Tuesday, Opening exercise in main lecture room, 8 p. m.
October 4	Wednesday, Lecture Sesion begins.
October 14	Friday, Registration of Students closed for Lecture Session of 1910-1911.
November 29	Wednesday, Thanksgiving recess begins 6 p. m.
December 4	Monday, Thanksgiving recess ends 8 a. m.
December 22	Friday, Christmas recess begins 6 p. m.
January 2	Tuesday, Christmas recess ends 8 a. m.
February 22	Thursday, Washington's Birthday recess.
May 15	Freshman and Junior Examina- tions begin.
June 13	Commencement Exercises.

# SCHEDULE OF STUDIES

Freshman Year. Anatomy, dissecting, physiology, chemistry, chemical laboratory, dental anatomy, comparative anatomy, operative technics, prosthetic technics, crown and bridge technics, histology general, histology dental.

Junior Year. Anatomy, dissecting physiology, chemistry, organic, metallurgy, general pathology, materia medica, children's teeth; crown and bridge, porcelain, prosthetic dentistry, prosthetic technics, crown and bridge technics, orthodontia technics.

Senior Year. Operative dentistry, prosthetic dentistry, oral surgery, bacteriology, dental pathology, dental materia medica and therapeutics, jurisprudence, ethics and hygiene, children's teeth, anaesthesia and extracting, porcelain.

#### CONDITIONS OF ADMISSION

#### Special Notice to Students

Extracts from Code of Rules of the National Association of Dental College Faculties:

"No college of this Association shall give credit for a full course to students admitted later than ten days after the opening day of the session, as published in the announcement."

In case one is prevented by sickness, properly certified to by a reputable practicing physician, from complying with the foregoing rule, the time of admission shall not be later than twenty days from the opening day.

Candidates for admission will not be permitted to matriculate for any session other than that immediately succeeding the date of matriculation.

For matriculation in the Freshman class without examination the candidate must have 16 units in subjects representing High School work. Applicants may be admitted upon 12 units, provided that the 4 additional units shall be made up before entrance upon the second year of the course.

Prospective students who have not these preliminary requirements, and those who are studying with a view to taking up the profession of dentistry, will be advised by the Dean as to the most advantageous course to elect.

In lieu of such units the applicant will be required to pass a matriculate examination, which shall be the equivalent of that forming the basis of the certificate of required preliminary education.

No student can be received who is not present within ten days after the opening day as announced in the Bulletin, except in cases of sickness, when ten days additional time will be allowed

# Admission to Advanced Standing

Extracts from rules of the National Association:

That advanced standing in the classes of members of this Association shall not be given to students except in the following instances:

First—Where a student shall have taken a full Freshman or Junior course in a dental school of this Association, or one especially recognized, he is entitled to enter the Junior or Senior year, or graduates from a reputable medical college, may enter the Junior year.

Colleges of the Association "may receive into the Junior and Senior classes only such students as hold certificates of having passed a satisfactory examination in the studies of the Freshman or Junior years respectively; this certificate is to be a pledge to any college to which they may apply that a previous year has been spent in the institution from whence they came."

# Requirements for Graduation

- 1. The candidate for the degree of Doctor of Dental Surgery shall be at least twenty-one years of age and of good moral character.
- 2. He shall have attended three full courses of lectures, of 32 weeks of six days each, exclusive of vacations, at some

recognized and accredited dental school. The last course of which he shall have attended at this College.

3. He must have passed satisfactory written examinations by the Faculty on the Lecture Curriculum, and earned a satisfactory rating as to attendance and practical work.

All operating, prosthetic and technic work must be done in the College Infirmary, or the College Building, and exclusively by the applicant for the degree.

# Rules Governing Standing of Students and Examinations

The grades will be made upon the scale of 100; the passing mark will be 75; attendance upon Infirmary clinics, 90 per cent; lecture courses and laboratories, 90 per cent.

#### GENERAL INFORMATION

When a student is obliged to withdraw from the College before the last four weeks of a session for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Faculty, he shall be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission to date reception by the Dean of a written notice of the student's withdrawal from the College.

Blank forms for application for admission will be sent by the Dean on request.

All fees must be paid in advance for each session, unless special arrangements are made with the Trustees. No student will be admitted for less than the stated fees.

All fees must be paid in full before the final examinations may be taken.

There will be no return of fees by reason of suspension or expulsion.

The matriculation fee must be paid to the Secretary before the name of a student will be recorded.

With the exception of legal holidays, the Infirmary is open the year round. There is no extra charge for the Summer Clinical Course. While not a requirement, it is advised that the student spend as much time of the vacation period as he possibly can in the actual practice of Dentistry in the Infirmary. This course is very advantageous to the student, as it enables him to put in four solid months of practical work without any interruption for lectures.

The College is not responsible for any personal losses of the students.

All fees due the College are paid to the Secretary at his office in the Infirmary.

Laboratory benches and operating chairs are selected by students in the order of matriculation, and each student is required to occupy the same during the session.

Living expenses are about the same as through the Middle West and cheaper than on the Atlantic seaboard. Arrangements can be made through the College for securing accommodations.

The Faculty reserves the right to terminate the connection of any student with the institution at any time on the ground of what it may deem mental or moral unfitness for the profession, disorderly conduct, or failure to comply with the rules of the College.

The Faculty will expel any student convicted of practicing dentistry illegally while under its jurisdiction.

Students will not be admitted to class work and the Infirmary until after purchasing the required books and instruments.

No degrees will be conferred upon a student who is not present in person at the commencement exercises, unless excused by the Dean.

The College reserves the right to change any of the foregoing regulations at any time that it may deem expedient.

Operations in the technic departments of the school require a large number of natural teeth, and a sufficient supply is sometimes difficult to get. Students will therefore find it to their advantage to bring all the extracted teeth they can obtain. Alumni and friends of the College are requested to send to the College boxes of extracted teeth. The College will be truly grateful for such favors and will gladly pay all express charges on such packages.

Graduate dentists will be admitted to the Infirmary for a less fee where the degree is not taken.

# Five Medals Are Competed For

Forty per cent of the students of each class must compete otherwise no prize will be given.

- 1. The Cave Medal is given to the student making the best piece of Prosthetic Technic work.
- 2. The Los Angeles County Dental Society Medal is given the Senior who has made the best average on theoretical work during the College course.
- 3. The Ford Medal is given to the student making the best piece of Porcelain Technic work.
- 4. The Atwater Medical is given to the student making the best piece of Operative Technic work.
- 5. The Eshleman Medal is given to the Freshman student who has the best technic work for the year.

#### SCHEDULE OF FEES

Fees payable in two equal installments—October 15th and February 1st.

No student will be admitted for less than the stated fees.

#### Freshman Year

Matricul	ation	fee	 5.00
Lecture	ticket		 150.00

\$155.00

# Junior Year

Matriculation Fee	
	\$155.00
Senior Year	
Matriculation FeeLecture ticket	

These fees include dissecting and all laboratory fees. There are no other charges made by the College.

# Deposits, Cost of Books and Instruments

Before beginning his work, each student will be required to procure the instruments necessary for his use.

The approximate cost of books and instruments, all of which are needed after graduation, is as follows: (This includes a dental engine, and gives the student a practical outfit, so that he can start into practice on finishing his course without much additional expense for instruments. A list of the instruments is furnished the student on his arrival.)

Freshman y	ear\$	100.00
Junior year		135.00
Senior year		85.00

Address all communications to the

COLLEGE OF DENTISTRY, U. S. C.,

Lewis E. Ford, D. D. S., Dean

304 East Fifth Street, Los Angeles, California.

# DEPARTMENTS OF INSTRUCTION OPERATIVE DENTISTRY

Professor, L. E. Ford.

Associate Professor, M. Evangeline Jordan.

Associate Professor, J. Walter Gray.

In this department the student is instructed in the latest methods of operative procedure, the fundamental principles being taught in the Freshman and Junior Technic courses.

All of the different conditions, materials and methods of manipulation are considered, so that the student when graduated is competent to enter into active practice and give his patients the best of dental services. In order to develop the judgment and diagnostic ability of the student the Seniors during the second semester are required to study each case presented to them in the Infirmary. When they have decided upon the best method of procedure they then call one of the instructors, who will confirm or correct their opinion.

If qualified at the beginning of the second semester, the Junior students are admitted to the Infirmary for practical operations.

A very thorough course is given in the preparation of cavities and construction of porcelain and gold inlays.

In connection with this department, Professor Jordan will give a course of lectures on The Care and Management of Children's Teeth.

This course will consider pre-natal influences, and the nutrition and development of the child as relating to the teeth; the treating, filling and extraction of children's teeth; the disturbances found in the oral cavity incident to the first dentition, and the management of children in the office.

#### ANATOMY

Professor, Melvin P. Ellis.

Instructor, Byron Polk Stookey, M.A.

# Freshman Anatomy.

Anatomy I. Lectures, recitations and demonstrations twice a week throughout the year.

In this course the anatomy of the Bones, Joints, Blood Vascular system, Peripheral nervous system, Thorax, Abdomen and their viscera is studied. Special emphasis is laid upon points of practical importance.

Anatomy II. Dissections and Demonstrations of at least one part of cadaver.

The student is shown the proper method of making careful and accurate dissections, particular attention being paid to thoroughness and relation of parts.

# Junior Anatomy

Anatomy III. Lectures by Dr. Murphy or Dr. Ellis—twice a week followed by recitations upon the same. Special attention given to the anatomy most intimately associated with the practice of Dentistry.

Anatomy IV. Dissection and demonstrations of the head and neck.

Text Books—Cunningham, Piersol, Gray. Spateholtz, Atlas, Sabotta. Atlas of Descriptive Anatomy.

# **OPERATIVE TECHNICS**

Professor, H. Gale Atwater. Professor, John G. Sheafer.

This important department is given especial attention in our College, for we realize that the future success of the student as well as the dentist, lies in first instructions.

It is our aim to make this department one of the strongest in the College. The object of this course is to afford a thorough technical training in operative procedures, preparatory to practical work in the Infirmary; to develop manipulative skill and to give the students an intimate knowledge of the tissues upon which they are to operate, of the physical qualities and adaptation of the materials to be used, and facility in the use of instruments by systematized practice upon teeth out of the mouth.

Special attention will be given to a study of pulp chambers and root canals, their number, size, form, and their relation to the outer surface of the teeth. Sections of the natural teeth will be prepared by each student in such a manner that these features will be clearly shown. The student will construct models carrying tooth forms of natural teeth, upon which operations will be performed as in actual practice. This will consist in the preparation of cavities and a study of their classification and forms; the study of enamel and direction of cleavage on different parts of the crowns of the several teeth with special reference to the best form and finish of margins of cavities for filling; the cutting of dentine and the various methods employed in anchoring fillings; the removal of carious tissue; the management of pits and fissures and the general shaping of the cavity. Instruction will also be given in the application of the rubber dam, the methods employed in gaining space, the use of clamps, wedges, separators, etc. In conjunction with practice in cavity preparation, there will be a study of filling materials and their manipulation. This course is designed to thoroughly ground the student in the principle of operative dentistry and prepare him to intelligently prosecute the practical work of the Infirmary.

#### COMPARATIVE DENTAL ANATOMY

Professor, Wm. Bebb.

This course covers a comparison of the teeth and surrounding tissues of man with those of the lower order of animal life. This is made more interesting and instructive to the student by the collection of crania, numbering 1,500 speci-

mens, which our museum affords, and a complete series of lantern slides for illustrating the lectures.

#### PORCELAIN

Professor, Eshelman.

Dr. Goodman, F. E. Burt.

Porcelain is attracting more and more attention. It is the most artistic method of restoring teeth or parts of teeth. Cavities in the natural teeth can be filled with porcelain inlays, which it is difficult to detect.

Students of this school will be expected to attain a high degree of proficiency in the manipulation of porcelain. The College is equipped with Townsend, Hammond and Custer electric furnaces, a large oil furnace for continuous gum work. Students are taught how to construct inlays by the use of Gold and Platinum matrices, the different blending of colors, and also a complete course of lectures is given covering the entire subject.

Opportunity is afforded the Seniors for making a technical continuous gum case.

#### PROSTHETIC DENTISTRY

Professor G. F. Eshelman, Dr. C. J. Engstrom.

Realizing that there is no branch of dentistry where students are ordinarily so deficient as in the prosthetic department, we have aimed to develop a practical working course in this line, to the end that our graduates may be able to do this class of work in a practical and artistic manner.

From an artistic standpoint we teach the higher possibilities of the art of restoring the features of the face, together with the staining and grinding of the teeth to meet the conditions of the individual type of the patient.

The fundamental principles of atmospheric pressure, leverage, etc., are dwelt upon, that the student may intelligently meet the conditions presented in difficult cases.

Both technical and practical denatures of all kinds are made, such as vulcanite, celluloid, aluminum, Watts metal, weighted rubber, gold and porcelain continuous gum.

Particular attention is paid to the latter, and the student may be able to restore the teeth of patients by the highest type of artificial appliance known to our profession.

Both practical and technic interdental splints are made for fracture cases, as well as obturators and velums for cleft palate cases.

A dentist may be called upon to restore loss of tissue adjacent to the oral cavity, and that our students may know how to do this class of work, they will be taught the making of celluloid ears and noses.

An overabundance of Infirmary patients, together with all modern appliances for doing the work under the direction of the most competent of professors and demonstrators, enables a student to develop a high degree of skill in this department.

#### DENTAL ANATOMY

Professor, Atwater.

This coming term we will introduce the use of lantern slides for the study of dental anatomy.

This method will be of material benefit to the student, as the different surfaces of tooth will be enlarged upon the screen.

The student takes up the study of nomenclature, followed by descriptive human dental anatomy, the arrangement of the teeth and the structure of the root canals.

Drawings and the making of cross-sections of the various teeth enter into this course.

# SURGERY AND ANAESTHESIA

Professor, Chas. D. Lockwood.

David D. Thornton, M.D.

The importance of this subject to the dental practitioner cannot be overestimated. A dentist is recognized as an oral

specialist. While he may not desire to undertake surgical operations, yet a lack of knowledge upon this subject will reflect upon his ability as a dentist in general.

Particular attention will be devoted to surgical diseases and injuries of the face, mouth, jaws and associate parts.

#### ORTHODONTIA

Professor, Jas. D. McCoy.

This subject is taught during the Junior and Senior years. During the Junior year the course consists of a series of lectures illustrated by numerous lantern slides. Beginning with normal occlusion the lectures take up the different classes of mal-occlusion, special attention being given to diagnosis and treatment. This is followed by several lectures on retention, followed by a course in model and appliance making.

In the Senior year the instruction is entirely clinical and is given at the individual chair in the Infirmary.

# HISTOLOGY—DENTAL HISTOLOGY—BACTERI-OLOGY—GENERAL PATHOLOGY

Professor, E. L. Leonard.

In our new laboratory, equipped with thirty-five new microscopes and every appliance and convenience, these departments are conducted in such a manner as to be of great benefit to a dental student. Histology and Dental Histology are given in the Freshman year, Pathology in the Junior and Bacteriology in the Senior year.

#### DENTAL PATHOLOGY

Professor, W. C. Smith.

The instruction in this branch will consist of two lectures each week to the Junior and Senior students, embracing a study of all pathological conditions of interest to the dental practitioner, together with a general application of the therapeutic agents indicated in the treatment of such conditions.

# DENTAL JURISPRUDENCE

Eugene Overton, Esq.

The lectures on Jurisprudence include qualification and duties of expert witnesses, the importance of dental records, etc., as a means of identification, the limitations of dental practice, the qualifications required, and the liabilities incurred by those who administer anaesthetics, the penalties that may be suffered, and the defense to be made in case of real or supposed malpractice, and the liability in case of infection from instruments; the requirements of the California law and the laws of other states respecting the practice of dentistry, the steps necessary to become legal practitioners, the duties and liabilities of dentists with reference to the law, etc.

#### EXTRACTION AND ANAESTHETICS

Dr. A. A. Shaw.

This course embraces a series of lectures upon the principles and practices of extracting, together with the use of the various local and general anaesthetics. With a well equipped Extracting Room and abundant clinical material, the student is afforded ample opportunity of becoming skilled in this work. This course will be given in the Junior and Senior years.

#### PHYSIOLOGY

Professor Jenks.

Professor Pallette.

Professor Tebbetts.

The course of Physiology is given during the first and second years. The work consists of a systematic course of lectures, recitations and demonstrations. This College has a complete Physiology Laboratory equipment.

The subject of Cells and Tissues, Blood and the Circulatory System, are first taken up, and later the course is devoted to .

the study of the Alimentary Canal Excretory Organs, Nervous System, Organs of Special Sense, and Organs of Reproduction.

#### PROFESSIONAL ETHICS AND HYGIENE

Professor Garrett Newkirk.

We are pleased to announce the return of Dr. Garrett Newkirk to our Faculty.

Professor Newkirk will deliver a course of lectures on these very important subjects. The personal and ethical conduct of the student before and after his graduation have quite as much to do in determining his standing and success in the community as does his knowledge and technical skill. Attendance at the society meetings is required.

#### CROWN AND BRIDGE WORK

Professor, C. H. Bowman, Dr. C. J. R. Engstrom.

Crown and bridge work pertains both to the operative and the prosthetic, and yet it occupies such an important field of dentistry that the College deemed it wise to make it of a separate department.

Students will receive a complete course in Crown technique, as well as lectures during their Freshman year. Juniors will receive a complete course in Bridge technique during the first semester, and will do practical work in the Infirmary during the balance of the year. Seniors will perform practical work in the Infirmary. The principles of construction of all of the various forms of crowns and bridges at present in use will be taught, also a study will be made of the stress applied by the muscles of mastication to the teeth, both singly and collectively, with its bearing upon crown and bridge construction, including the conditions under which bridges should or should not be used. The clinical facilities are excellent, requring Porcelain and Gold Crowns and Bridges.

# GENERAL AND DENTAL MATERIA MEDICA AND \* THERAPEUTICS

Professor, B. Frank Gray.

Professor Gray will give one lecture each week to the Junior class, and one lecture a week to the Senior class.

The work for the Junior class consists in a study of definitions, abbreviations and terminology use, the source of drugs in nature, preparations made from crude drugs, methods of administering medicines, and agencies classification of drugs, their physical, chemical and poisonous properties, dosage antidotes and therapeutic application. Special attention is given to those drugs which are most valuable in the practice of dentistry, and the course is so planned that the student may receive a practical knowledge of the application of dental medicine in his every-day work.

The Senior class will carefully review the work of the Junior year in a systematic way, and thereafter a special course of lectures will be given relating to the latest and best approved methods of the profession in the application of medicines to the treatment of those pathological conditions of more than usual significance to the dentist.

#### **CHEMISTRY**

Professors A. H. Jones, L. H. Wentworth.

# 1. General Chemistry

- A. Lectures, Demonstrations and Text Book.
- B. Laboratory Work.

The general principles of inorganic chemistry are reviewed. Especial stress is laid on physical chemistry, so that the student may correctly interpret the modern ideas of matter and the properties of matter. Then the study of the elements and their compounds is taken up; first the non-metals—most of them being prepared in the laboratory. In the study of the metals the application of the principles of chemistry and

metallurgy to the dental profession is continually borne in mind.

Qualitative analysis is begun during this year.

#### II. METALLURGY

- A. Lectures and Demonstrations.
- B. Laboratory Work.

In this course only those metals are considered that are of importance to the dentist. These are studied with reference to their physical and chemical properties; their separation and refining and their identification. The student is given unknown compounds of these metals and required to identify both metal and acid radical.

The chemistry of the mouth and salivary digestion is considered both in lecture room and laboratory. And the course is finished by the student preparing several organic compounds in every-day use in his profession—such as choloroform, aristole, iodoform, etc.

#### CLINICAL DENTISTRY

M. W. Hollingsworth, D.D.S.

We also take great pleasure in announcing that Dr. M. W. Hollingsworth has joined the teaching staff of this College. During the year he will give special demonstrations showing how difficult cases should be operated upon.

For many years he was associated with one of the largest Dental Manufacturing Companies, and his ability as a Clinician and Demonstrator is so well known that no additional comment is necessary.

#### INFIRMARY

Our Infirmary and clinical facilities are our special pride. The room is large and beautiful, facing north (the ideal light), and is equipped with every modern convenience. The number of patients who apply here for services is truly phenomenal, and no student need fear that his practical education will be neglected. Last year more than five hundred patients in excess of the number that the students could find time to attend to applied for services. From this great clinic we are able to select for the student all of the operations in any given line in which he may desire to specialize, or where he feels that he needs extra experience and practice.

We have arranged the lecture schedule in such a manner that the students can work with little interruption from nine in the morning until four in the afternoon.

In charge of the work as professors and demonstrators we have a number of teachers of long experience and unquestioned ability. The student has the advantage of the personal contact and instruction of these competent men, and is not taught by students or recent graduates.

Fifteen new Columbia chairs will be added to the Infirmary this year.

#### COLLEGE OF MUSIC

The musical department of the University is now in its twenty-sixth year. By a faithful adherence to high standards its faculty have brought it to a well recognized position in higher musical education. Its diplomas have all the prestige which comes from its long establishment and the name of the University. Its graduates and former students are taking prominent places in the musical world all over the Southwest, both as teachers and performers.

Extended courses are offered in a wide range of musical subjects. The end sought in every branch pursued by the student is such thoroughness as will give him a genuine accomplishment and true culture or insure him the mastery expected of a professional.

#### ADVANTAGE OF COLLEGE STUDY

The general spirit of earnest study characteristic of an institution of higher learning such as the University has been found to react very beneficially on the student of music, who, too often, is inclined to superficiality. Breadth of character and liberal ideas are more surely attained in the atmosphere of general education than in that of specialized study.

Among the many points of superiority of college study in music may be mentioned the regular attendance at lessons required; the musical atmosphere created by the recitals, lectures and class work; the incentive to greater effort by observing the proficiency of others; the sharpening of the critical faculties and the development of taste by hearing other students perform; the opportunity given for obtaining in class work, at very slight expense, the very best of training in the theoretical studies, such as harmony, theory and history of music—studies which are essential to the well-grounded musician and which the private teacher cannot touch upon in the lesson hour.

# **EQUIPMENT**

The College of Music occupies the south wing of the main building. The interior is thoroughly modern and artistic in finish and furnishings. It contains a commodious and elegant reception hall, furnished as a reception and reading room, also cloak room and lavatories, lecture hall and recital hall, and a large number of exceptionally large and attractive studios.

The school is equipped with a full complement of teaching and practice pianos. The pipe organ in the college chapel is available for practice only to our students. It is blown by electric motor and the charge for rental is no more than blower's fees would be in an organ blown by hand.

#### RECITALS

A feature of the greatest value to the students is the weekly pupils' recitals, at which the pupils are expected to play or sing before the whole school, as their teachers may direct. Public performance is an art in itself, and can only be mastered by many public appearances. Pupils who acquit themselves creditably at the recitals before the music students only, are allowed to appear at the public recitals of the school. A practical familiarity is thus gained with the music of the other branches represented outside of the student's specialty. Recitals are also given by the faculty from time to time, who are also frequently heard in the recitals given by the advanced pupils. Music students have free admission to all public exercises of the school.

#### NORMAL CLASSES FOR PIANO STUDENTS

A course of twelve class lessons or lectures is given each year by the faculty and others on matters relating to the subject of teaching. Methods of instruction and technical problems are considered. Lists of teaching material are given and reviewed and a question box leads to interesting and valuable discussions. This course is required of all graduates.

#### THE COURSE OF STUDY

The educational system of the school is divided into two general departments: the Preparatory and the Normal or Collegiate.

No requirements are made for admission, but applicants should be prepared to perform one or two musical selections of different styles representative of their previous work.

All beginners are received in the preparatory department, whether they plan for the regular advanced courses or merely desire the best of training during the time they devote to the study. Correct elementary teaching is the most important and, in some respects, the most difficult of all. It is the aim of the school to advance pupils as rapidly as is consistent with thoroughness and the formulation of correct habits.

The Normal or Collegiate department is designed for students preparing for the profession as teachers and artists and for amateurs desirous of obtaining a thorough training in the art and science of music.

#### DIPLOMAS

The diploma of the University is given at the completion of the Normal or Collegiate course.

The requirements for graduation in any department are the completion of the prescribed course in that department, at least on year's work in which must be done in this school; the completion of the Normal course of four semesters in harmony and ear training, two semesters in musical theory and two semesters in musical history, and the public performance during the senior year of an entire program under the direction of the department teacher, and, for piano students, the Normal class work.

Organ students will also be required to take the semester of "key-board harmony." Vocal students are required to take one year of piano work.

#### TEACHERS' CERTIFICATES

Teachers' Certificates will be given to those who have completed the work of the Normal course, but who for any reason

are unable to give the public recital required for graduation. They will, however, be required to give before the faculty a program of a somewhat less exacting nature than that required for the diploma.

#### COLLEGE CREDITS

Credits will be given in the College of Liberal Arts for musical work as follows: Two semester hours per term will be credited to students making passing grade in any one of the theoretical studies or advanced vocal or instrumental work, the total credits in any case not to exceed fifteen.

#### BUSINESS REGULATIONS

Students entering after the opening of the term will register for the remaining portion, and will be charged pro rata, except that no deduction will be made for absence from the first two lessons. The work of the term begins on the date advertised, and students who enter late will find themselves behind their classes.

All students are required to attend the regular recitals of the school and to take part in them whenever so assigned.

No deduction will be made for occasional absence from lessons or for lessons discontinued without notice. Lessons missed will be made up to pupils, if notice of the intended absence is given two days in advance.

Lessons falling on national holidays are not lost to students.

Sheet music will be furnished students at teachers' rates, if paid for on delivery.

A discount of fifteen per cent is allowed to the children of Methodist ministers on vocal and instrumental work.

Settle all accounts at the office only, making checks payable to THE DEAN.

TERMS: Tuition is payable strictly in advance at the beginning of each half term.

In case an extension of time is absolutely necessary, arrangements must be made with the Secretary, the terms of which will be stated on the bill and must be strictly adhered to.

For courses of study and further particulars send for special booklet.

#### TOTAL EXPENSES

(By the Semester, Nineteen Weeks.)

#### MR. SKEELE

# Piano or Pipe Organ

45	minutes,	once	a	week	\$47.50
45	minutes,	twice	a	week	95.00
30	minutes,	once	a	week	38.00
30	minutes	twice	2	wook	76.00

#### MR. PEMBERTON

# Theory, Harmony or History

45 minutes, once a week	28.50
45 minutes, twice a week	57.00
45 minutes classes, twice a week	15.00

# Violin

1	hour, c	nce	a	week	38.00
1	hour, t	wice	a	week	76.00

# MR. SEILING

# Violin

45 minutes, once a week	47.50
45 minutes, twice a week	95.00
35 minutes, once a week	38.00
35 minutes twice a week	76.00

MISS	TROWBRIDGE	
Pi	ano	·
	45 minutes, once a week	33.25
	45 minutes, twice a week	66.50
	30 minutes, once a week	
	30 minutes, twice a week	57.00
MISS	ARNETT	
Pi	ano	
	45 minutes, once a week	23.75
	45 minutes, twice a week	.47.50
	30 minutes, once a week	
	30 minutes, twice a week	38.00
MISS	PATTON	,
Pi	ano	
	30 minutes, once a week	
	30 minutes, twice a week	38.00
D	unning System	
,	1 hour classes of 4 to 6, twice a week	38.00
MRS.	ROBBINS	
V	ocal	
	30 minutes, once a week	47.50
	30 minutes, twice a week	
MR (	COGSWELL	
V	ocal	
	30 minutes, once a week	
	30 minutes, twice a week	76.00

# Miscellaneous Expenses

Normal Class, six lessons per semester	6.00
Rental of Pipe Organ, one hour each day	17.10
Rental of Pedal Piano, one hour each day	8.55
Rental of Piano, one hour each day	4.00
Diploma Fee	10.00
Certificate Fee	5.00

# COLLEGE OF ORATORY

The system used in the College of Oratory is based upon the Cumnock Method, founded by Robert McLean Cumnock, L.H.D., Director of School of Oratory, Northwestern University, Evanston, Illinois.

The aims of the College are:

To develop the inner man.

To prepare the body to express the inner man.

The method is neither imitative nor mechanical, but is founded upon psychological principles.

The pupil acquires the power to interpret for himself and to express emotions through his own individuality. The result is a naturalness and simplicity of manner together with personal power.

A great deal of attention is paid to the Department of Public Speaking. Ministers, theological students, or any who may have occasion to address audiences, will find this work of great value.

The Calendar of the College of Oratory is the same as that of the College of Liberal Arts.

#### COURSES OF STUDY

#### (Class Work.)

- 1. Fundamental Principles of Expression, English phonation, enunciation, interpretation of selections from Cumnock's Choice Readings. Two hours, first semester.
- 2. Voice building, breathing, tone placing, bodily expression, interpretation of selections from Cumnock's Choice Readings. Two hours, second semester.
- 3. Interpretation from modern writers: Kipling, Barrie, Van Dyke, Riley, Kate Douglas Wiggin, Maclaren, Dunbar and others. Two hours, both semesters.
- 4. A study of Lyric Poems: Wordsworth, Browning, Tennyson, Burns, Lanier, Arnold and others. Two hours, either semester.

- **5. Voice,** Relaxation, Concentration, Breathing, Tone Placing, Rhythm, Phrasing. One hour, both semesters.
- 6. Debate and Extemporaneous speaking. Two hours, either semester.
- 7. Oratory. A study of masterpieces of Oratory. Text: Sears' History of Oratory. Two hours, either semester.
- 8. Shakespeare: Julius Caesar, or King Richard II; Twelfth Night, or Two Gentlemen of Verona; Midsummer Night's Dream. Two hours, either semester.
- **9. Artistic Anatomy.** A summary of Anatomy intended for the study of forms, attitude and movements. Text: Duval's Artistic Anatomy. Two hours, first semester.
- 10. Repertoire, abridgement of books and classics for public presentation, arrangement of program, impersonation. Advanced students only. Two hours, second semester.
- 11. Bible and Hymn Reading; Vocal Expression of the Bible and Hymns, Voice Building. Text: Curry's Vocal Interpretation of the Bible. Two hours, either semester.
- 12. Assembly. All private pupils meet with the Dean to pursue a course in the Art of Expression. Two hours, both semesters.
- 13. Dramatic Club. Interpretation and presentation of the drama. A study of dramatic law. Two hours, both semesters.
- 14. Physical Expression. Two years of training for physical development and the acquiring of grace and harmony in all bodily movements. Two hours, both semesters.
- 15. Story Telling. A study is made of the art of telling stories to children. One hour, both semesters.

# DIPLOMA COURSE

The work required in this course consists of: Three years of private work, two lessons per week; the fifteen courses; two years' gymnasium work; College work sufficient to enroll a student as a Junior in the College of Liberal Arts.

#### CERTIFICATE OF EXPRESSION

The work required in this course consists of: Two years of private work, two lessons per week. Courses 1, 2, 3, 5, 9, 10, 12, 13, 14 and 15, and two of the remaining five courses to be elected; one year of Gymnasium work.

Students wishing to complete this course of study must have at least one year of History, and two years of English.

#### CERTIFICATE OF PHYSICAL TRAINING

The work required in this course consists of: Two years of private work in physical training, two lessons per week. Courses 1, 2, 3, 5, 9, 13, 14, 15, and three of the remaining seven courses to be elected; two years of general work in the Gymnasium.

Students wishing to complete this course must have at least one year of Physiology or Hygiene.

#### RECITALS

Pupils' recitals are given every two weeks, on Wednesday at 3:50 p. m., in the Athena Literary Hall. The participation in these recitals by students is required that the student may have practice and gain confidence in appearing before audiences. All students enrolled in the school are expected to be present at each recital. Admission to friends is by card.

Faculty recitals are given each semester by the instructors in the school, or by artists from the outside.

# PHYSICAL EXPRESSION

"Is not that the best education which gives to the mind and to the body all the force, all the beauty and all the perfection of which they are capable?"—Plato.

Special classes in Physical Culture are conducted for the Oratory students. The laws which underlie Physical Expression are here studied and such exercises are given as will best develop the pupil toward health, expressiveness of movemnt and grace. It is the aim of this work to bring

the body under perfect control of the will, and to teach the principles of gesture in such a manner as to give spontaneity and freedom from affectation.

#### CHILDREN'S DEPARTMENT

This course is planned for children under twelve years of age. Classes are organized in expression, where the children are trained in common reading and in the delivery of recitation.

Classes are also formed in Physical Culture, where children are taught correct breathing, standing, walking, sitting, and ease and lightness of movement. Exercises are given to correct individual faults of body, such as round shoulders and hollow chests.

#### TUITION

Fees are payable to the Dean in advance. nstruction per semester, (18 weeks).

Full course, including two private lessons per week, four or more classes in Expression, one study in the Preparatory School, or College of Liberal Arts.

Paid in advance for the year	\$130.00
Full course, per semester	70.00
Two private lessons per week (30 minutes)	50.00
One private lessen per week (30 minutes)	25.00
A course of ten lessons (30 minutes)	15.00
One private lesson per week (45 minutes)	37.50
A course of ten lessons (45 minutes)	22.50
Single lessons (45 minutes)	. 3.00
Single lessons (30 minutes)	to 2.00
Class, two periods per week (55 minutes)	. 10.00
Dramatic Club, two periods per week (55 minutes)	. 10.00
Coaching plays (60 minutes)	. 1.50

#### Physical Education

Full	certificate	course				\$60.00	
One	private les	son per	week	(30	minutes)	) 25.00	

#### Children's Department

Two private lessons per week, Expression (30 minutes).	35.00
One private lesson per week, Expression (30 minutes)	20.00
Class Expression, course of 15 lessons	8.00
Class Physical Culture, course of 15 lessons	5.00

A discount of 10 per cent on all private work will be given to minister.

No tuitions are refunded except in cases of protracted illness.

A registration fee of \$5.00 is charged, which is included in the tuition. In case a refund is made the registration fee is deducted.

The diploma fee is \$10.00.

The certificate fee is \$5.00.

A student in the College of Liberal Arts may elect a maximum of fifteen hours in the College of Oratory.

University of Southern California College of Oratory,
Thirty-fifth Street and Wesley Avenue.
Miss Beulah Wright, Dean.

# COLLEGE OF FINE ARTS CALENDAR

#### 1911

September 11	Enrollment of Students.
September 13	Class work begins.
December 22 (Friday)	Christmas Vacation begins.

#### 1912

(Examination in Osteology and special branches, last week in January.)					
FebruarySecond Semester begins.					
June 3Examinations begin in Anatomy					

June	13	Commencement.

Art History, Mythology, Technic,

# June 13 .....Alumni Reunion and Banquet.

#### THE COLEGE OF FINE ARTS

There has long been a crying need for a standard of attainment which would fix the status of a graduate in art as clearly as that of a graduate in law or medicine. Our curriculum, as set forth in this bulletin, and the reputation which the College of Fine Arts has gained for thoroughness, are guarantees sufficient that our graduates are qualified experts in their specialties, as capable in their work as college training can make them and needing only experience to place them in the front ranks of their profession.

There are, at present, in these Western states many professorships and supervisorships waiting for competent and well trained teachers. There are opportunities in architectural drawing, in designing for glass, metal work and textiles, wood carving, jewelry, scene painting, etc.

Expert workers in these lines are always in demand, and many students learn these crafts as a convenient stepping stone to the study of fine art.

It should always be understood that thoroughness is essential to success everywhere. The lower ranks are always overcrowded in every line of endeavor.

In this friendly climate outdoor work is possible almost every day in the year. For this reason a large part of the lecture and recitation work, as well as painting and drawing, is done on the college grounds. The immediate surroundings of the school are exceedingly picturesque. The buildings overlook the famous Arroyo Seco, a treasure house of paintable subjects, with the San Gabriel valley and the white peaks of the Sierra Madre mountains closing the distance. There are seven large, well lighted and ventilated studios, picture gallery and lecture room, an art library with all the best art magazines and every possible convenience. The equipment for drawing, life study, modelling and the various art crafts is complete. The quality of the teaching staff is not excelled anywhere.

The great change which has occurred in recent years in the social conditions of the masses and the awakening of the public mind to a keener appreciation of the things which make for better living, demands a new departure in the teaching of art ideas and the practice of making beautiful things.

Art is no longer a rare and isolated thing for the enjoyment of the few. The aim of every artisan and of every manufacturer nowadays is to turn out something beautiful which may add to the general enjoyment of life. So art is applied to everything that is made and there are a hundred artists busy now where there was one thirty years ago.

The aim of the art crafts is to make some useful thing beautiful, and the facilities are now such that every person who has the sense of beauty and a little finger ability may produce something both useful and beautiful; indeed, something worth while.

No occupation in the world so appeals to the average mind as the making of beautiful things.

The College of Fine Arts has a perfect equipment, a staff of expert teachers and every facility for the production of good results in all the crafts. An attractive feature of craft study is that pupils often produce work which values many times the cost of tuition.

#### COURSES OF STUDY

#### Teachers' Course-Three Years

**First Year**—Charcoal drawing from the cast, pencil drawing from landscape, mechanical drawing, including geometry, perspective and projection, art history and mythology.

Second Year—Drawing from life, portrait, draped and nude figure, composition, landscape, modelling, applied design, anatomy, water color, art history, sacred history, pottery and metal work.

Third Year—Painting in water color and oil from life and landscape, pen and wash drawing, composition, modelling, anatomy, design, art crafts in metal, wood and pottery, normal teaching course.

# Architectural Course-Two Years

First Year—Same as teachers' course.

**Second Year**—Building construction, plan drawing, perspective, historic styles, history of ornament, nature of materials, stresses and strains and mathematics.

# Design Course-Two Years

**First Year**—Free hand and mechanical drawing and original design.

Second Year—Composition, color, harmony, original design.

Third Year—Historic design, Interior Decorating, Applied design.

# Sculpture-Three Years

First Year-As in teachers' course.

Second Year-Modelling from life, draped and nude, portrait, art history, mythology, anatomy.

Third Year—Modelling from life, grouping, composition, historic monuments, anatomy and casting in plaster and metal.

# Degree Course-Four Years

First, Second and Third Years—As in teachers' course.

Fourth Year—Specializing in water color or oil, life or landscape, etching, pastel painting and design, leading to the degree of Bachelor of Fine Arts.

# Special Branches

The painting course includes drawing, technic in water and oil, anatomy, chemistry of pigments, color harmony and composition.

# Anatomy

Artistic anatomy includes study of the skeleton, superficial muscles and movements from life.

# Illustrating

This course embraces the technic of charcoal, pencil, pen and brush work, anatomy and the principles of design and composition.

# Designing

The course in design covers mechanical drawing, composition, the history of principles of ornament, color, harmony, the constructive requirements of fabrics, glass work, textile products, metal work, etc.

#### Metal Work-Brass and Iron

Includes hammer work, etching, chasing, piercing, mould making, casting, forging and enameling.

# Jewelry

This course includes wire and band work, casting, chasing, jewel setting, enamelling and design.

#### Normal Art Course

Includes practical work in all the art branches taught in grade schools, as object drawing in pencil, charcoal and wash, silhouettes, potato printing, stencilling, cardboard modelling, colored chalks, harmony, design, etc.

# Wood Carving

Wood carving includes design, the selection of woods and the technic of carving, incising, bas-relief and the round.

# Art Glass

Art glass includes design, hard metal mounting, leading, cutting, color harmony, painting on glass and firing.

# **Diplomas**

Certificates and other honors are conferred by the University of Southern California, with which institution the College of Fine Arts is affiliated.

#### Special Branches

May be taken separately from the course and certificates of proficiency will be granted on passing the required examinations.

#### Credits

For work done in other schools will be allowed when satisfactory proficiency is shown.

#### Students

In special branches may enter the school at any time.

# At the College of Liberal Arts

In the University building classes are conducted in mechanical drawing, perspective, machine drawing, architecture and freehand drawing.

#### Lectures

There are three lectures per week on anatomy and other art subjects free to all enrolled students.

# Frequent Competitions

Are open to advanced students, entitling the winners to certain school privileges.

#### A Gold Medal

Is each year given to the student of any grade making the best record.

# A Scholarship

For one year given to the graduate making the best record.

# FEES (All day lessons)

6 Days per week\$	312.00	per	month
3 Days per week	6.50	per	month
1 Day per week	3.50	per	month
Single Lessons each	1.00		
Full Collegiate Year	85.00		
Per Semester	45.00		
To post graduates, per year	25.00		
Graduation fee	5:00		

No charge is made for models, lockers, boards, easels, etc. Materials are furnished to students at wholesale rates.

All fees payable in advance.

Class hours: 8 a. m. to 12 m. 1 p. m., to 4 p. m.

The school dormitories are equipped with every comfort and convenience, including facilities for light housekeeping.

Board and lodging may be had near the school at reasonable rates.

### COLLEGE OF PHARMACY CALENDAR

### 1911

October 10 (Tuesday)......Registration.

October 17 (Tuesday)......Instruction begins.

November 23 (Thursday).. Thanksgiving Vacation.

December 18 (Monday)....Christmas Vacation begins.

### 1912

January 1 (Monday)..........Christmas Vacation ends.

January 29 (Monday)......Mid-year Examinations begin.

February 22 (Thursday)....Washington's Birthday.

March 25 (Mon.) March

31 (Sunday).....Spring Vacation.

May 20 (Monday).....Final Examinations begin.

June 13 (Thursday)......Commencement.

### Advantage of Location

Los Angeles is the metropolis of Southern California. Its population of about 325,000 represents almost every State in the Union and many foreign lands.

The climate throughout the year is such that tourists from every quarter come to spend a part of the year, and many return to make this their permanent home.

It is the greatest railroad center on the Pacific Coast. Four transcontinental lines are now complete. A network of electric roads connects the city with the numerous beaches, mountain resorts and outlying towns. These are reached by delightful journeys through orange groves and orchards of semi-tropical fruits characteristic of the region.

### University Advantages

The close association of the student of the College of Pharmacy with those of the other colleges of the University on the campus affords valuable opportunities for social culture and attending prominent lectures on subjects of vital interest to the student.

### Course of Instruction

The system of instruction will include lectures, demonstrations, recitations, written and oral examinations, as well as individual instruction in operative and dispensing pharmacy, organic, inorganic, and analytical chemistry, botany, materia medica, pharmacognosy, toxicology, hygiene, physiology, sanitary science, food and drug analysis, and microscopy, with special lectures upon business topics especially suited to the retail pharmacist.

The session will open October 10, 1911, and will continue until June 2, 1912, and the schedule will be conducted during the forenoon so as to allow students the privilege of retaining their positions as clerks in the stores of Los Angeles and neighboring towns while attending college. The hours of instruction are from 8 a. m. to 12 m.

### Requirements for Admission

Requirements for admission may be met as follows:

- 1. Graduation from an accredited High School or other preparatory school of approved rank.
- 2. The completion of one year of High School work or its equivalent after eight years of Grammar School work.

Any delinquencies in the entrance conditions may be removed during the first year's work in Pharmacy in the Preparatory School of the University or with tutor approved by the College of Pharmacy.

Applicants must be at least seventeen years of age.

### Advanced Standing

Students who have pursued courses of study in other colleges of pharmacy will be given credit for such portions of their work as are equivalent to the work required by this College.

### Conditions for Graduation

The candidate for the degree of Pharmaceutical Chemist (Ph. C.) from this College must have fulfilled the following conditions:

- \*1. He must have attained the age of twenty-one years.
- 2. He must be of good moral character and must have maintained an irreproachable moral standing while in attendance at this College.
- 3. He must have attended two full courses in each of the departments of this College, or one course (the Senior) in this, after a course in some other recognized College of Pharmacy.
- 4. He must present a thesis embodying an account of some special work done under the supervision of the Faculty.
- 5. He must have attended at least 80 per cent. of the lectures, reviews and laboratory work.
- 6. He must be present at Commencement unless excused by the Dean.

\*If under age, the degree will be conferred at the satisfactory completion of his course in college; but his diploma will be held by the Dean until this condition has been complied with.

### Graduate Course

Students who have received the degree Pharmaceutical Chemist (Ph.C.) from this university, or have had an equivalent training elsewhere may be admitted to the graduate courses of study. On completion of one year's work approved by the faculty and meeting the other requirements for graduation, the degree Bachelor of Pharmacy (Ph.B.) is conferred.

### DEPARTMENTS OF INSTRUCTION

### **PHARMACY**

Professor, Arthur R. Maas.

Junior Year-Eight hours per week.

The lectures of the Junior year will treat of the history of the Pharmacapoeia. Weights and measures, percentage solution and the arithmetic of dispensing and manufacturing pharmacy, owing to their importance, will be considered at length. Specific gravity and specific volume will be taught by demonstrations, using the various apparatus for the purpose, accompanied by a thorough explanation of each. Heat will next be considered, then the operations wherein heat is used; evaporation, distillation, sublimation, desiccation, exsiccation, etc. This will be followed by a discussion of the preservation of crude drugs and their preparation for manufacturing purposes; then the operations of decantation, filtration, clarification, maceration, infusion, decoction and percolation.

Alternating with the subject of operative pharmacy, the galenical preparations will be critically studied; while they will be discussed from the standpoint of their several classifications, such individual preparations as merit it will be given special consideration, the object being to familiarize the student with the reasons for each step taken in the manufacture of the different preparations.

### Senior Year-Eight hours per week.

The lectures of the Senior year will embrace the study of the inorganic and organic acids and the salts of the different metallic bases; the commercial methods of preparation will be touched upon, and a special effort will be made to teach the student how to prepare them extemporaneously when necessity arises therefor. In addition to the official compounds, those unofficial ones which through frequency of use merit it, will likewise be treated of.

This will be followed by a study of alkaloids and the neutral principles of vegetable drugs.

Extemporaneous pharmacy will then be taken up and will include a thorough discussion of dispensing. Facsimiles of physicians' prescriptions will, by means of the stereopticon, be thrown upon a screen, and the class drilled in reading those that are with difficulty legible. Chemical and Pharmaceutical incompatibilities will be taught, and best methods discussed for overcoming same.

Manufacturing Pharmacy. Visits are made to several large manufacturing establishments where the preparation of pills, tablets, fluid extracts, etc., are studied at length from a manufacturing standpoint.

### MATERIA MEDICA-PHARMACOGNOSY

Professors, A. C. Life and C. W. Hill.

This course consists of one lecture or recitation and one laboratory exercise of two hours per week, and will present the subject in as broad, yet concise form as possible. It will be confined to that intsruction which will be of greatest benefit to the student when the course is completed, giving larger consideration to those drugs of animal and vegetable origin which in commerce are most frequently met with.

The subject will treat first of those drugs of animal derivation, and will then proceed to give consideration to those drugs of Phaneroganic and Cryptogamic origin. The lessons and lectures in Materia Medica will be based upon the pharmacopoeia; at the same time due observation will be given to those remedies which are unofficial. The order in which these agents will be taken up will be based upon a commercial classification, studying first the roots, which will be subclassified according to analogous properties; then continuing with Rhizomes, Barks, Flowers, Fruit, Seeds, etc. A prominent feature of the course will be found in the concurrent lecture system of instruction.

Instruction will be given two hours per week in Pharmacognosy, by lectures, as well as by recitations, quizzes, home study and examination of drugs—all these will be given with

the view of enabling the student the more readily and thoroughly to identify the drug and give judgment as to quality.

The subject will be presented as follows: 1st—Drugs of animal origin. 2nd—Vegetable drugs.

Treating first the Cryptogams and next the Phanerogams.

Each drug will be considered as to its nature, origin, commercial and botanical relation, and microscopical structure, active principles, therapeutic action, doses, etc.

Adulterations, admixtures and substitutions will be thoroughly discussed.

### CHEMISTRY

Professor, Laird J. Stabler.

Junior Year-General Chemistry.

Two lectures or recitations and six hours in the laboratory each week for the year.

A course of lectures and demonstrations designed to be an introductory course in general chemistry, including a consideration of the principles governing chemical action and a description of the properties of the various elements and their compounds, as well as a drill in the meaning and use of symbols in chemistry, formulae and equations. Special emphasis is placed on chemical facts involved in the daily work of a pharmacist.

Junior Laboratory Course. The student is provided with a complete equipment of apparatus for qualitative analysis. During this course, a detailed study of the chemical and physical properties of the non-metals and their more important compounds is made and practical instructions in qualitative and volumetric analysis is given. Particular attention will be given to the separation and identification of the compounds of the United States Pharmacopoeia, together with tests of purity.

General Inorganic Chemistry. During the first part of the year the student prepares the more important elements and

their compounds, making a careful study of their chemical and physical properties.

Qualitative Analysis. This course follows the course in General Inorganic Chemistry. It is a study of the methods of separation and identification of the principal bases and acids. In this work the identity and purity tests of the Pharmacopoeia are studied. The student analyzes a number of compounds unknown to the student, for bases and acids and makes tests for impurities in Pharmaceutical and commercial chemicals.

### Senior Year

Organic Chemistry—Toxicology—Urine Analysis. Two lectures or recitations and six hours each week throughout the year.

Organic Chemistry. The course will cover the whole field of this branch which is so important to the pharmacist. Special attention will be paid to those compounds which are of pharmaceutical value, including synthetical and medicinal preparations. The following subjects are studied with care, hydrocarbons, alcohols, ethers, compound ethers, aldehydes, glycerin, fats, soaps, oils, carbohydrates, organic acids, amines and amides, aromatic bodies, resins, albuminoids, cyanogen compounds, alkaloids, etc. Some of the important chemical operations occurring in nature will receive attention, such as combustion, decay, fermentation and putrefaction.

Laboratory Work in Organic Chemistry. The laboratory work will consist of the preparation of typical organic preparations illustrating the general reactions involved in organic chemistry. Among the preparations made are, ether, chloroform, iodoform, acetic ether, nitrous ether, acetanilide, methyl salicylate, etc.

Quantitative Analysis. An introduction to the underlying principles of gravimetric and volumetric analysis. Attention is paid to the standard "Volumetric Solutions" of the Pharmacopoeia.

**Toxicology—Laboratory Course.** The course will include lectures and practical laboratory work in the identification of the common poisons and also the methods of separating them from various complex mixtures.

Urine Analysis. The course will consist of lectures on the normal and pathological constituents of urine. In the laboratory the qualitative and quantitative estimation of sugar, albumin, urea, etc., will be studied as well as microscopic examination of the sediment.

Food and Drug Analysis. The latter part of the Senior Year will be given over to Food and Drug analysis. The course will consist of lectures and laboratory work. Each student will be required to make a number of assays of U. S. P. preparations and also examine food products for preservatives and adulterants. The official methods of analysis of the Department of Agriculture will be used.

### BOTANY AND MICROSCOPY

Professor Ulrey.

Assistant Professor Life.

**Botany.** The courses in Botany are planned with reference to the needs of the pharmacist. Since most drugs are parts of plants or plant-products a thorough knowledge of plant life is necessary to those whose business requires the dispensing of drugs.

Junior Course. The full year is devoted to the study of seed-bearing plants; (1) The parts of the flower, leaf, root and stem are studied with reference to classifying plants and learning the names of representatives of each of the more important families. (2) The microscopic structure of the parts of the plant is then studied to become familiar with the kinds of cells found in the stem, root and leaves preparatory to the study of pharmacognosy. (3) A study is made of the manner in which drug products are produced by the

life processes and habits of plants. The production of resins, oils and other vegetable substances is considered.

Senior Course. During the senior year the non-flowering plants are studied: (a) Algae and Fungi (Thallophytes); (b) Mosses and Liverworts (Bryophytes); (c) Ferns and their allies (Pteridophytes). Most of this course consists of a microscopic study of typical plants representing the groups with a series of lectures dealing with the meaning of facts observed in laboratory study. Special attention is given to those plants like the fern, club mosses, the so-called "Irish Moss," ergot, etc., which are of importance to the pharmacist.

In each of the courses the student is furnished a compound microscope, hand lens and dissecting instruments.

The lecture room is supplied with a complete electrical projection apparatus by which microscopic objects can be thrown on the screen before the class.

Microscopy. Throughout the course of Botany the student has learned the use of the microscope, its parts, the methods of preparing slides for temporary use, etc.

In this course the student examines and uses the different kinds of microscopes and accessories. He learns how to measure microscopic objects (micrometry) and to prepare permanent slides of tissues and other objects. The laboratories are fitted up with a complete set of apparatus for photographing microscopic objects; ten styles of compound microscopes of foreign and American makes; four styles of microtomes; camera lucida; condensers; micrometers and several hundred prepared slides for use in class work and demonstration.

### PHYSIOLOGY, HYGIENE AND SANITARY SCIENCE

The action of drugs on the body is a subject requiring more attention from the pharmacist than formerly. He is responsible both morally and legally for the results of his sale of drugs.

Therefore a knowledge of the human body and its functions becomes an absolute necessity to the present-day pharmacist.

### Physiology ·

I. Junior Course. The first semester is given to a study of the human body, its parts and the way it carries on the functions of digestion, circulation, etc.

All the systems of organs are considered and each of the fundamental processes is studied.

The semester's work prepares the student to understand to some extent what action drugs may have on the body.

### Hygiene

The care of the body as to the use of foods, drink, fresh air, exercise, etc., comprises the first part of the course. A consideration of the methods by which one may enjoy health as a result of right living and the injury likely to result from wrong habits.

The place of drugs in every-day affairs as they are related to hygiene.

### Sanitary Science

The nature of bacteria, methods of growing them and their place in nature. A sufficient acquaintance with these microscopic plant forms is attained to enable the pharmacist to know which bacteria are beneficial and which disease producing; what conditions are harmful and what not so; how to prevent decay of foods, etc., methods of sterilization and disinfecting. The water and milk supply and other foods receive special study with reference to the bacteria they contain.

The course gives sufficient practice in handling bacteria to avoid needless fear of them and to guard against the danger of infection where disease-producing forms are likely present.

### TOXICOLOGY

Professor, Arthur R. Maas.

This course consists of lectures to the Senior Class in which the different kinds of poisons are studied, the classes of antidotes, the various body conditions which modify the

effects of poisons, and the different channels by which poisons may enter the body. Later each poison is taken up in detail and studied as to its lethal dose, symptoms, antidote and treatment. Attention is given to Posology, doses of potent drugs being given special emphasis.

### PHARMACAL JURISPRUDENCE

### Mr. Howard A. Peairs

The course consists of lectures to the Senior Class in which the rights and responsibilities of pharmacists and the laws affecting the same are taken up and fully discussed. The Constitution of the United States and State Constitutions are explained, then Federal and State law, international law, etc. The statutes regulating the practice of Pharmacy, with their constitutionality, are discussed. The legal limits of Pharmacy, right to practice, legal qualifications of pharmacist, etc., are taken up, together with the liability of pharmacist and manufacturing pharmacist.

### COMMERCIAL PHARMACY

### Mr. L. Schiff.

This course consists of lectures on topics in connection with the conduct of the business of Pharmacy, such as Buying, Selling, Insurance, Advertising, Bookkeeping, Correspondence, and General Business Building.

### FIRST AID TO THE INJURED

C. L. Lowman, M.D.

This course is planned to meet the needs of the Pharmacist who is often called upon to render first aid in accidents and do general emergency work.

The subject touched on will be Wounds and their treatment, Burns, Fractures and Dislocations, Poisoning, Resuscitation in unconscious conditions, Bandaging, etc.

### GRADUATE COURSES

### Degree of Bachelor of Pharmacy, Phar.B.

These courses are open to graduates in pharmacy either of this or other colleges requiring equivalent qualifications for graduation.

The graduate course consists of one year's instruction in the following subjects. The course is to be elected with the approval of the faculty. Upon completing the prescribed course, passing the required examination and presenting to the examining committee a satisfactory thesis embodying in it the results of orginal research or investigation in a subject allied to pharmacy or chemistry, the candidate will receive the degree of Bachelor of Pharmacy.

Analysis of Food Materials and Food Products. The course consists of lectures and laboratory work, making use of the standard method employed by the food and drug chemist. Laboratory practice is upon material obtained in the open market and includes the following subjects: Meat and meat products, edibles and fats, dairy products, cereal products, saccharine products, canned vegetables, cocoa, tea, coffee, spices, vinegar, flavoring extracts, fruits and fruit products, fermented and distilled liquors, baking powders, food preservatives and coloring matter.

**Assaying.** This course comprises silver and gold extraction by scorification and crucible methods; fire assays of copper, lead and tin, extraction of gold from ores by the amalgamation, the chlorination, the cyanide and the electrolytic process.

Organic Chemistry. A course of lectures and recitations based upon Remseus' Organic Chemistry.

Synthetic Organic Chemistry. This course consists of the manufacture and purification of a large number of organic substances illustrating typical reactions.

**Inorganic Preparations.** A laboratory course including preparation of inorganic compounds, with tests for purity and strength.

### Pharmacy

The work in pharmacy will be left partially to the option of the student. It will, however, be along the lines of advanced pharmaceutical operations, such as the extraction, purification, identification and assay of alkaloids, volatile and fixed oils, resins, oleo-resins, gums, gum-resins, etc.

The student will also examine drugs and pharmaceuticals purchased in open market, applying tests of the U. S. Pharmacopoeia and making such further examinations as may be necessary to determine the purity and strength of the article in question.

When improvement of U. S. P. processes, preparations or tests seems desirable, the student will be given an opportunity to work along these lines.

Throughout the course the instruction will be as far as possible individual and personal, and especially directed toward the requirements and aims of each separate student.

### Bacteriology and Sanitary Science

The course consists of a further study of Bacteriology in its relation to hygiene, sanitary science and the work of the pharmacist. It consists in part of water tests, staining bacteria, testing disinfectants and a study of bacteria of foods.

### **EXAMINATIONS**

Written examinations are held from time to time during the session in each of the subjects taught by the professors, and the ratings received are recorded.

Attendance upon these examinations is compulsory. Any student unavoidably absent is required to deliver to the professor a statement in writing of the cause of his absence.

Each student is required to attend at least 80 per cent. of the lectures and laboratory sessions in each department, and failing to do so becomes ineligible for examinations except where he presents a satisfactory excuse for absence prior to the examination. Junior Examination (for admission to the Senior class).— Junior students, whose rating shows satisfactory progress, receive certificates entitling them to admission to the Senior class.

Junior students who receive a low grade in not over two subjects may enter the Senior class on condition, such conditions to be removed by examination before the end of the first semester of the Senior year.

Junior students who fail in more than two subjects are required to attend college another term.

First-course students from other colleges of pharmacy, who desire to enter the Senior closs of this college, are required to produce evidence of their fitness, or to pass an examination.

Senior Examination. Students in the Senior class are examined for the degree of Pharmaceutical Chemist at the end of the session, in Inorganic and Organic Chemistry, Pharmacy, Botany, Materia Medica, Pharmacognosy, Physiology and Toxicology.

Thesis. Senior students will be required to present a graduating thesis. Such thesis is to show the result of some original work in one of the departments of pharmacy. The subject of the thesis is to be approved of by the professor in whose department the thesis is selected. Thesis subjects should be selected not later than the middle of the first semester, and preferably during the Junior year, so as to allow plenty of time for work.

These are to be handed in two weeks before the close of college.

### **EMPLOYMENT**

The course of lectures has been so arranged as to permit those who desire it to devote a portion of their time to employment.

The Secretary will keep a register of students seeking such employment, and will give every assistance possible in procuring it for them.

### **ATHLETICS**

The Faculty encourage athletic sports for their value in developing the body, furnishing a means of pleasant recreation, as well as a source of social and ethical culture, and in cultivating the spirit of co-operative enterprise. One of the finest athletic fields in Southern California is on the campus as well as a gymnasium completely equipped.

Students of the college in good standing are eligible to places on the foot-ball, baseball and track teams of the University.

Discipline and Good Order. All students are expected to observe the principles of good conduct and order while attending the College, and plain infractions of the rules will be referred to the Executive Committee of the Faculty, with recommendation of reprimand, suspension or expulsion.

Suggestions to Prospective Students. It would be to the advantage of students if they would matriculate a few days in advance of the opening exercises, secure boarding places, and fulfill the entrance requirements, so that their studies may not be interrupted in the beginning.

**Board and Lodging.** Good board and lodging vary in prices from \$3.50 to \$6.00 per week. Rooms for those who wish to board and lodge themselves will cost from \$6.00 to \$10.00 a month. By forming boarding clubs, students may reduce the cost of board to \$2.00 a week.

A list of desirable rooms and boarding places may be obtained by addressing the Young Men's and Young Women's Christian Association of Los Angeles or by inquiring at these organizations.

### FEES AND EXPENSES

Tuition Fees. The tuition fee for each year is \$85. The payment of this fee entitles the purchaser to one continuous course of lectures and laboratory instruction in all departments. The tuition fee covers all drugs, chemicals and other

materials (with the exception of a few expensive drugs and chemicals) consumed by the student in the laboratories.

Special Students may, by permission of the faculty, take any part of the course at a proportionate tuition fee, providing that such fee shall not be less than \$25.00.

Medical students will find a systematic instruction of pharmacy an excellent foundation for a medical course. The instruction offered in this school of pharmacy will give a working knowledge of chemistry as is applied in the engineering and metallurgical industries.

Laboratory Deposit. Chemical and pharmaceutical apparatus and supplies, together with microscopes and other implements required in the work of the course are furnished by the College without expense to the student, but breakage or damage to apparatus must be paid for, and for this reason each junior or senior student is required to deposit \$15.00 with the Secretary. This deposit, or such portion of it as is not required for the specified purpose, will be refunded at the close of the term.

A diploma fee of \$10.00 will be required.

Payment of Fees. All fees must be paid at the beginning of the term. Where this is impossible, the Laboratory Deposit and at least one-half of the tuition must be paid upon entering the class. The balance of tuition to be secured by note to be paid sixty days from date of matriculation.

All fees must be paid before the final examinations are taken

### CORRESPONDENCE

Letters of inquiry will receive careful and prompt attention. Address all communications to College of Pharmacy, Thirty-fifth Street, and Wesley Ave., Los Angeles, California.

### COLLEGE OF THEOLOGY

### CALENDAR

### 1911

Dorietration

October 5Kegi	stration.
October 6Regi	stration.
October 9Lection	ures begin.
191	12
February 6, 7, 8, 9Mid-	year Examinations.
February 13Lect	ures begin.
June 4-7Final	Examinations.

October 5

Vacations and Special Days uniform with the College of Liberal Arts.

### HISTORICAL

The Maclay College of Theology was founded about twenty years ago by State Senator Charles Maclay in a generous endowment of lands in the San Fernando Valley. Rev. R. W. C. Farnworth, presiding elder of the Los Angeles District, was its first dean, the faculty being completed by the appointment of Reverends Fletcher B. Cherington and James Blackledge. On the death of Dean Farnsworth, the Rev. R. S. Maclay, D.D., the veteran missionary from the Orient, was called to the headship of the college which bears his name. When advancing years and failing strength caused the resignation of Dr. Maclay, the Rev. George Cochran, D.D., was called to succeed him.

Through all this period the college had been doing excellent work, coming about the time of the succession of Dr. Cochran from its home in the San Fernando Valley to the immediate neighborhood of the College of Liberal Arts in Los Angeles.

In the hard times of 1893 the trustees thought it expedient to close the Maclay College until its resources should warrant the continuance of its work. At the session of the Southern California Annual Conference in 1907, on the urgent request of the conference, the decision was made to resume work in theology, and its present dean, Rev. E. A. Healy, D.D., was appointed.

The intimate relation of Maclay College to the College of Liberal Arts is of great advantage to both, appearing in the convenience of location on the same campus, and the interchange of credits where subjects are common to the two colleges.

It is the aim of the College of Theology to do all that is possible to furnish the churches of our constituency with preachers who shall be at once scholarly and evangelical, and pastors who shall be apt and successful in their difficult work.

In pursuance of this aim the following courses are arranged with the specified conditions of admission:

- 1. The Degree Course. A three years' course for students who have obtained the A.B. degree. The completion of this course will entitle the graduate to the degree of Bachelor of Divinity.
- 2. The Diploma Course. This is also a three years' course, open to students who have the equivalent of junior standing in the College of Liberal Arts. The Maclay College Diploma will be granted to graduates in this course.
- 3. Special Students. Applicants will be admitted as special students to classes that, in the judgment of the Faculty, they can enter with advantage, and certificates will be given for all subjects satisfactorily taken.

### ADMISSION

A license to preach will be a sufficient credential. Those not so qualified may present a certificate from their pastor as to their fitness to study for the Christian ministry, or for other religious work.

### COURSES

### Classical Course Degree

Church History.
Practical Theology.
Greek (Elementary).
Hebrew.
Biblical Introduction.
Systematic Theology.

## Church History. Practical Theology. Systematic Theology. Greek (N. T.)

Systematic Theology.
Historical Theology.
Practical Theology.
Greek (N. T.)
Hebrew.
Apologetics.
Sociology.
Sacred Oratory.

### Greek-English Course Diploma

## JUNIOR CLASS

Church History.
Practical Theology.
Greek (Elementary).
Biblical Introduction.
Systematic Theology.

## MIDDLE CLASS

Church History.
Practical Theology.
Systematic Theology.
Greek Testament.
English Exegesis.

## SENIOR CLASS

Systematic Theology. Practical Theology. Greek Testament. Sociology. Sacred Oratory.

### English Course Certificate

Church History.
Practical Theology.
Biblical Introduction.
English Literature and Expression.
Systematic Theology.

Church History.
Practical Theology.
English Exegesis.
Systematic Theology.
English Literature and Expression.

Systematic Theology.
Practical Theology.
English Exegesis.
English Literature and Expression
Apologetics.
Sociology.
Sacred Oratory.

### DEPARTMENTS OF INSTRUCTION

Apologetics. The whole subject of the defensive facts and proofs of Christianity is included in this general term. Primarily it is found in the courses in the English Bible, given by Professor Hill, including Hermeneutics and Christian Evidences. Historical and Systematic Theology contribute to the full equipment of the student in this wide field.

### BIBLICAL INTRODUCTION.

Christian Evidences-Foundations of Faith.

Professor Hill.

This course will take up those phases of thought and facts of life that confront the student of today. The idea of God and the divine immanence; man and the legitimacy of the religious principle in the human constitution; the Bible as a revelation of God's relation to, and purpose concerning man's life and destiny; the facts of conversion and the history of Christianity as witnesses to the divine origin of the system; and a consideration of the assumptions of modern cults which oppose or offer themselves as substitutes for Christianity.

### CHURCH HISTORY.

Professor Coultas.

In this subject the work begins with the Life and Times of Christ, and progresses through the Apostolic, Mediaeval and Middle Ages to Modern Times.

The history of doctrine is traced from the beginning; special care is taken with the great movements of the Church, such as the Reformation, the Wesleyan Revival, and the Church in America, including the history of American Methodism. Bishop Hurst's volumes are made a basis, but wide reference is had to standard authors.

### EARLY ENGLISH BIBLE.

Professor Dixon.

Lectures on Early English translations, with readings from the first and the earlier English Gospels are given by the head of the Department of English, and afford a rare opportunity in a realm of great interest.

### ENGLISH LITERATURE AND EXPRESSION.

This very important part of a preparation for the ministry is given a prominent place. In addition to the full courses in the College of Liberal Arts, special opportunity for study and training in interpretation and expression is afforded in the College of Oratory, which is conveniently located near Maclay College.

### SACRED ORATORY.

In the Senior year, in each course, a minimum of two hours per week in the College of Oratory is required.

### NEW TESTAMENT GREEK.

Professor Owen.

Those who have had no previous training in the Greek language will register for course 1 in the College of Liberal Ats.

- 2. The Gospel according to John will be studied as a basis for mastering the language of the New Testament. Harper and Weidner's Introductory Greek Method will be used throughout the year. Two hours, both semesters. 2:00 Tuesday and Thursday.
- 3. The Gospel according to Luke; selections from the Acts, Epistle of James, Intensive Grammar and Syntax drill; word derivations and synonyms. Two hours (hours to be arranged).

### HEBREW LANGUAGE AND HISTORY.

Professor James Blackledge.

The main object of instruction in this department is the securing of a good reading knowledge of the Hebrew text; hence during the first two years of the course special attention is given to oral class-reading exercises—the fundamental principles and rules underlying the Hebrew language—the origin of grammatical forms, with some exegetical study during the second semester of the second year.

A greater part of the first two years is devoted to the study of the text of the Pentateuch. During this time the student is requested to look up the inscriptions of Israel's neighbors—the Assyrians and Babylonians—in the library, with the view of aiding in the study of the text.

The principal object of our method of instruction is, by constant review, and frequent composition exercises, to make an otherwise dry study, as interesting as possible. During the latter half of the course will be taken up the studies in Messianic prophecy, with more exegical work; exegetical studies in the minor prophets, and a critical study of the Book of Job. During the last semester of the course there will be grammatical, critical and exegetical studies of selections from the Book of Psalms. During the entire course occasional lectures will be given on the Old Testament and related subjects.

The effort is, not to read meanings into the passages considered, but to get the original author's exact viewpoint. This is often a most difficult task and calls for modern scientific methods of application in exegesis. To obtain the exact idea intended by the author, the interpretative principles, methods and rules must be learned and applied. Some knowledge of the Greek language will be helpful. Two hours throughout the year. Tuesday and Thursday (hours to be arranged.

Prerequisite, Bible 1, 2, 3, 4.

### HOMILETICS

### Doctor Hughes

Kern's "The Ministry to the Congregation" is made the basis for instruction in this chief work of the preacher in connection with the subject of Pastoral Theology.

Dr. Hughes gives one lecture a week on this important subject, and is attracting, in addition to the regular theological students, many ministers who have been long in the pastoral work. His style is strong and clear and holds one's interest to the last sentence. His range of subjects covers the whole field of the pastor's life and work. The place of Pastoral Theology; the history, theory, and practice of preaching; the call to the ministry; the preparation to be added to nature's qualifications for the work; the history, constitution and development of the church; what the church does for the pastor, and the pastor's obligation to the church; relation of children to the church, and of the pastor to the children; the minister and his brethren; the pastor and the Sunday school; the pastor and the literature of the church; his use of books and libraries; methods and means of worship: pastoral visitation; the institutional church; the minister and social problems—such themes and many others, treated in the trenchant style of Dr. Hughes, comprise a course of living interest and great value. Christian workers and others interested are admitted to these lectures.

### THE HISTORY OF CHRISTIAN MISSIONS.

### Professor Coultas.

This course requires two semesters. The first begins with Paul, A. D. 46, and continues to Carey, A. D. 1792. It briefly considers the condition of the world when Paul and Barnabas leave Antioch in the year 46, and studies the missionary spirit that manifested itself to Carey's time under the following agencies: promiscuous, governmental, papal, monastic, mendicant orders, military power, Jesuits, colonization,

and denominational. The second semester deals with modern missions, their past, present and promise.

Lectures on Comparative Religions are given to classes in this subject.

### SOCIOLOGY.

### Professor Hunt

Principles of Sociology. Elements of social theory. The structure, development and activities of human society. A comprehensive study of the social process and social ends, with frequent application to concrete conditions. Three hours, first semester.

**Social Theories.** A comparative study of the writings of leading sociologists of the present day. Extensive library work and frequent student reports are among the requirements. Three hours, second semester.

With permission of the Dean and the Department of Sociology, students may substitute for Social Theories:

Charities and Corrections. Studies in social pathology, poverty and philanthropy, the dependent classes, public and private administration of charities. The class visits charitable and reformatory institutions in Los Angeles and vicinity to study conditions and methods of social betterment. Three hours

### SYSTEMATIC THEOLOGY.

### Dean Healy.

In the Junior year the textbook is "The Christian Faith" (Curtis). In the middle year the "System of Christian Doctrine" (Sheldon). While these works form the basis of study for the students out of class, a wide reference to authors, old and new, is encouraged, and all is supplemented by lecture and question in the class-room hour.

In the Senior year research in the library, and current theological literature, with essays on assigned subjects, and a

continued attendance in the lecture-room will complete the work in this important field.

### FEES AND EXPENSES.

Tuition in Maclay College is free.

A registration fee of \$12.00 a semester is charged.

A generous concession is made by the College of Oratory in favor of Maclay students. A fee of five dollars per semester is charged for the work required in Sacred Oratory.

Lectures by men and women of eminence in special fields are frequently given in the Assembly Hall and are free to all our studnts.

Students taking any one of the three courses will be allowed three hours in each semester, free of charge, in the College of Liberal Arts.

Free residence in the Maclay College Building is provided for a limited number. Rooms will be assigned in the order of accepted applications.

Numerous churches in the vicinity of Los Angeles find pastors among our students, and our District Superintendents are glad to make such arrangement where it is mutually satisfactory.

An information and employment bureau is maintained by the University Y. M. C. A., which is very helpful to those who wish to support themselves while in attendance at colleg.

Any additional information promptly given on application to

E. A. HEALY, Dean, Maclay College,

University, Los Angeles, Cal.

### PREPARATORY SCHOOL

### CALENDAR

### 1911

September 12-14..... Entrance Examinations and Registration for First Semester.

September 15 (Friday).....Recitations begin.

November 23-24.....Thanksgiving Vacation.

December 18 (Monday)....Christmas Vacation begins.

### 1912

January 1 (Monday).........Christmas Vacation ends.

January 25 (Thursday)......Day of Prayer for Colleges.

January 29-February 6.....Mid-Year Examinations.

February 9 (Friday)......Instruction for Second Semester begins.

February 22 (Thursday).... Washington's Birthday.

March 25-31.....Spring Vacation.

June 3-11.....Final Examinations.

June 12 (Wednesday)......Graduation Exercises.

### THE PREPARATORY SCHOOL.

The Preparatory School is maintained in connection with the College of Liberal Arts. All of the instruction in the Preparatory School is under the supervision of the college faculty, thus insuring the best preparation for entrance to college. The students enjoy all the general advantages open to students in the College, including library, lectures, laboratories, religious and social privileges.

While the work of this school is mainly that of preparing students directly for the College, yet without lessening the work in this direction, the authorities realize the importance of giving increased attention to the large number of young people who desire academic instruction, but do not wish to devote the necessary time and means to secure a collegiate education. For this large and worthy class, the school purposes to provide sufficient facilities, so that in the limited time at their command they may acquire some preparation for their future work.

### Requirements for Admission.

Applicants must have finished work equivalent to that required for admission to the high schools. They must show evidence of fitness to begin the work of the classes in the school. Persons who wish to take a partial course, or to select their studies, can enter the preparatory school without a formal examination, and pursue such subjects as they may be prepared to take.

### Registration.

The method and regulations in registration are the same as those in the College of Liberal Arts.

### Absence from Exercises.

The rules and regulations concerning absences from required exercises are the same as in the College of Liberal Arts.

### Assembly.

The Assembly period is 11:45 to 12:10 Monday, Tuesday, Thursday and Friday of each week. Attendance is required. Wednesday of each week, at the chapel period, the Young Men's and the Young Women's Christian Associations hold their respective devotional services, to which the students are cordially invited.

### Reports.

Reports of standing are sent to the parent or guardian of all students each month. The Faculty desire the co-operation of parents in their efforts to maintain a high grade of scholarship and deportment.

### Graduation and Diplomas.

The Preparatory School has a special evening set aside in commencement week for its graduation exercises.

Each student who completes one of the regular courses of study will be granted a diploma.

### Literary Societies.

The Webster Literary Society is composed of young men who meet each week for training in public speaking.

The Willard and Annesley Literary Societies are composed of young women who meet each week for training in literary work.

### Prizes.

A prize of ten dollars is offered to the student who wins in contest in declamation.

The University offers to its representative in the Interscholastic Oratorical Contest, a semester scholarship in the third, or fourth year, Preparatory School (value \$40); and an additional semester scholarship in the third or fourth year, if said representative wins first place in the Interscholastic Contest.

The scholarship is not transferable.

### Rooms and Board.

Students are required to submit to the Faculty a statement of the places where they desire to room and board, and must secure their consent in each case.

Board and furnished rooms can be secured in private families at from three dollars to five dollars per week. Furnished rooms accommodating two students cost from four to eight dollars per month.

Other expenses incident to school life vary with the habits and circumstances of the student. They are not, of necessity, so great as to be burdensome to persons in moderate circumstances. The instances have been extremely rare in which students of good ability and health have been compelled to leave the school for want of money.

### General Information.

For general information concerning location of school, religious privileges, library and reading room, the museum and the science laboratories, athletics and the gymnasium, see under College of Liberal Arts.

### FEES AND EXPENSES.

Tuition, per semester, in advance	.\$40.00
Tuition, per year (two semesters) if paid in advance	. 80.00
Tuition, for six to ten hours, per semester	. 30.00
Tuition, for five hours, or less, per semester	. 20.00
(Hours as used above means so many hours per wee	k.)
Athletic fee, required of all students	. 2.00
Gymnasium and Physical Education taken without other	•
studies, per semester	. 8.00
Registration fee included in above, but not subject to re-	_
bate	. 5.00
Diploma fee	
Laboratory fees—	
Chemistry	8.00
Physics	4.00
Botany	4.00
Zoology	. 4.00

An additional deposit of five dollars to cover breakage is required in Chemistry. This deposit, less cost of breakage, is refunded at the end of the year.

The children of ministers in the regular work of any evangelical denomination may have their tuition reduced to one-half the regular rate.

A discount of ten per cent of the tuition will be allowed when two or more students enter from the same family.

No rebate will be allowed for less than one-half a semester's enforced absence.

For further information address

PRESIDENT GEORGE F. BOVARD,

Los Angeles, California,

# COURSES OF STUDY

The regular courses of study are four in number, any one of which is designed to prepare students to enter the College of Liberal Arts, or institutions of similar standing. A student who has completed one of these courses is admitted to the College without examination.

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	A	В	C	D
1st	5 ENGLISH, 2:00 5 LATIN, 8:55 or 1:05	5 ENGLISH, 2:00 5 LATIN, 8:55 or 1:05	5 ENGLISH, 2:00 5 LATIN, 8:55 or 1:05, or	5 ENGLISH, 2:00
YEAR	5 ALGEBRA, 10:50 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1:05	5 ALGEBRA, 10:50 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1:05	5 ALCEBRA, 10:55 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1:05	5 GEKMAAM, 9:55 2 GYM., Boys, 2:65, 3:50 Cirls, 9:55, 10:50, 1:05
9nd	5 ENGLISH, 1:05 5 LATIN, 8:55 5 ANC. HIST, 2:00	5 ENGLISH, 1:05 5 LATIN, 8:55 5 ANC. HIST. 2:00	5 ENGLISH, 1:05 5 LATIN, 8:55, or @GERMAN, 5 ALGEBRA, 9:55	5 ©CERMAN, 10:50 5 ALCERRA 9:55
YEAR	4 BOTANY, Recit. 10:50 M.W., Lab. 9:55, M.W. 9:55:10:50 T.Th. 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1.05	4 BOTANY, Recir. 10:50, M.W., Lab. 9:55 M.W. 9:55-10:50 T.Th. 2 GYM., Boys, 2:00, 2:55, 3:50 Girls, 9:55, 10:50, 1:05		5 DNAWING, 8:55-12:10 M. W. 1:05-3:50 M. T. W. 2 GYM., 9594, 2:00, 2:55, 3:50 Girls, 8:55, 10:50, 1:05
3rd	5 GREEK, 10:50 , 5 LATIN, 2:00	5 ENGLISH, 8:00 - 5 LATIN, 2:00	5 CHEM., Recit. 10:50 T.Th.F.,	5 Elective (3) 5 CHEM., Recit. 10:59 T.Th.F.,
YEAR	5 PL. GEOM., 8:55 5 AMER. HIST., 9:55	5 PL. GEOM., 8.55 5 AMER. HIST., 9:55	5 PL. GEOM., 8:55 5 AMER. HIST., 9:55	5 PL. GEOM., 8:55 5 AMER. HIST. 9:55
4th	5 GREEK 9:55 5 LATIN 8:00 5 PHYSICS, Recit. 8:55 M.T.W Lab. 1:05:3:50 Th.F.; or	5 Elective (4) 5 LATIN, 8.00 5 PHYSICS, Recit. 8:55 M.T.W., Lab. 1.05-3:50 Th.F. or	5 Elective (4) 4 BOTANY, Recit. 10:50 M.W., Lab. 9:55 M.W. 9:55:10:50 T.Th. 5 PHYSICS, Recit. 8:55 M.T.W.,	5 OMATHEMATICS A, 8:00 T. W. Th. 5 DRAWING, 8:55-12:10 M.W., 105-3:50 M. T. W.
LAN	Lab. 1:05-2:55, W.Th.	Lab. 1:05-2:55, W.Th. 5 Elective (4)	5 Elective (1)	5 Elective (4)
1				

NOTE — The figures denote the number of class recitations (or their equivalent in laboratory work and drawing) per week.

(i) Mathematics A, includes Trigonometry, Solid Geometry and a review of Algebra.

(ii) Students who have received credit for two years of German, and who intend to take up German 2 in their freshman year in College, must review the second

semester of German 1 (College) in their last semester in the Preparatory School.

(a) Electives in the Third year are English, Latin, German, French, Spanish, English, Zoology, Botany, Mathematics A, Physics, Chemistry, Algebra, Anc. Hist.

### DEPARTMENTS OF INSTRUCTION

### ENGLISH.

### FIRST YEAR.

### First Semester.

- 1. Grammar and Composition. One hour a week.
- 2. Classics. Four hours a week.
  - a. Hawthorne's Twice-Told Tales.
  - b. Macaulay's Horatius.
  - c. Irving's Sketch Book.
  - d. Poetry of the People.

### Second Semester.

- 1. Grammar and Composition. One hour a week.
- 2. Classics. Four hours a week.
  - a. Byron's Prisoner of Chillon.
  - b. Scott's Lay of the Last Minstrel.
  - c. Scott's Ivanhoe.
  - d. Poetry of the People.

### SECOND YEAR.

### First Semester.

- 1. Rhetoric and Composition. One hour a week.
- 2. Classics. Four hours a week.
  - a. Addison's Sir Roger de Coverley Papers.
  - Lowell's Vision of Sir Launfal and Commemoration Ode.
  - c. Classical and Teutonic Mythology. .
  - d. Gray's Elegy.

### Second Semester.

- 1. Rhetoric and Composition. One hour a week.
- 2. Classics. Four hours a week.
  - a. Shakespeare's Merchant of Venice.
  - b. Macaulay's Warren Hastings.
  - c. Coleridge's The Ancient Mariner.
  - d. Curtis' The Public Duty of Educated Men.

### THIRD YEAR.

### First Semester.

- 1. Rhetoric and Composition. One hour a week.
- 2. Classics. Four hours a week.
  - a. Carlyle's Essay on Burns.
  - b. Milton's L'Allegro and Il Penseroso, Comus, Lycidas, Sonnets.
  - c. Goldsmith's Vicar of Wakefield.
  - d. George Eliot's Silas Marner.

### Second Semester.

- 1. Rhetoric and Composition. One hour a week.
- 2. Classics. Four hours a week.
  - a. Shakespeare's Julius Caesar.
  - b. Tennyson's Idylls of the King.
  - c. Lincoln's Inaugurals, and Gettysburg Speech
  - d. Emerson's The American Scholar.

### FOURTH YEAR.

### First Semester.

- 1. Themes: Exposition and Argument. One hour a week.
- 2. Classics. Four hours a week.
  - a. English Poetry: Chaucer to Browning.
  - b. Outline History of English Language and Literature.
  - c. Shakespeare's Macbeth.
  - d. Lowell's Democracy.

### Second Semester.

- 1. Themes: Exposition and Argument. One hour a week.
- 2. Classics. Four hours a week.
  - a. Burke's Conciliation with the Colonies.
  - c. Webster's Reply to Hayne.
  - d. Thomas' Manual of Debate.

### ENGLISH BIBLE.

Two courses of one hour each are offered for students in the Preparatory School—Old Testament, 10:50 Tuesday, first semester; New Testament, 10:50 Tuesday, second semester.

### GERMAN.

### First Year.

Collar's Beginning German. This text book provides the material for the first year's course. It comprises studies in pronunciation, grammar, drill on the forms, elementary conversation, and various anecdotes and poems for translation and memorizing. Further interesting reading and material for conversation and composition is taken from Allen's Herein.

### Second Year.

The grammar is finished and reviewed. Various modern German stories, poems, and plays are read and reproduced, both orally and in the form of written exercises.

The class work is conducted mainly in German, and the ability to read accurately and fluently and express simple thoughts in spoken and written German is required.

### GREEK.

### First Year.

Benner and Smith's text is used throughout the year. The aim of the first year's work is thoroughly to acquaint the pupil with forms.

### Second Year.

During this year the first four books of Xenophon's Anabasis are translated. Daily practice is given in sight reading. Pearson's Greek Prose Composition is used throughout the year. The work is made the basis of a thorough drill in grammar. Goodwin's Greek Grammar is used for reference.

### Third Year.

Books I-IV of Homer's Iliad are read and translated. Practice in sight reading is given daily from Books V and VI. Scansion, forms, syntax and mythology are given special attention. Pearson's Greek Prose Composition is used throughout the year.

Note. Beginning classes in Greek are carried on in the College Department in which the work outlined above is covered in two years. Preparatory students who show special ability and strength in this subject are admitted to these College classes and are advised to avail themselves of this privilege. The same credit (three units) is given to Preparatory students in these classes as is granted in the Preparatory Department for the three years work.

### HISTORY.

The work in History is carried on by means of text-books, lectures, essays, and library work. Constant reference is made to the atlas and dictionary, maps are drawn, essays required, and the topical method is used for special subjects. Full and carefully kept note-books are required in all the subjects in this department.

- 1. Ancient History. Greek and Roman History. One year.
- 2. American History and Civics. One year.

### LATIN.

### First Year.

The aim of the first year's work is to attain an accurate pronunciation, a thorough knowledge of all the regular forms

of declension and conjugation, together with the simpler principles of syntax, and a vocabulary of about eight hundred common words.

#### Second Year.

Four books of Caesar's Gallic War are used. Regular forms are reviewed and essential irregular forms are learned in a systematic study of Latin grammar. There is regular practice in oral or written translation into Latin of exercises based on the text read, and slight translation is an important part of the year's work. Some attention is given to subject matter.

#### Third Year.

In the reading and interpretation of six of Cicero's orations the time is equally divided between language and subject matter. The grammar is thoroughly reviewed in regular oral or written composition based on the text. An attempt is made to gain a definite knowledge of Cicero and his age, of the Roman government in Cicero's time, and of the city of Rome. The simpler letters are read at sight.

## Fourth Year.

The first six books of Vergil's Aeneid are read and interpreted. A special effort is made to approach the work as poetry. Prosody, figures of speech, mythological references, and poetical constructions are studied. Metrical reading is insisted upon. An idea of the Aeneid as a whole is gained by the sight reading of portions of the last six books. Two days each week are occupied during the first semester in a review of syntax and in prose composition.

## MATHEMATICS.

The aim of the course in Mathematics is to cultivate the habits of independent reasoning, of accuracy of work, of precision and clearness in the statement of conclusions and the reason upon which they depend. First in importance is the intellectual training that makes the mind a ready and keen

tool; second, the orderly acquisition of facts. Absolute thoroughness and work that increases in amount and difficulty with the student's increasing capacity, are required. The student's efficiency is measured by his power to do. Throughout the course written reviews and test examinations are frequent.

#### ALGEBRA.

### First Year.

Wentworth's New School Algebra, through Quadratics. Special emphasis is placed on factoring and on the solution of equations. The object of the study is not only to acquire a knowledge of the subjects required for admission to the leading universities, but to secure the mental discipline for its own sake, and such a drill as looks to the use of the algebraic method in future study.

### Second Year.

Beman and Smith's Elements of Algebra. A review of the first year's work is taken, and the text book is completed. This work is supplemented by lectures on the theory of algebra, and these form a most important part of the course.

### Third Year.

Fisher and Schwatt's Higher Algebra, two hours a week. This course is given as an elective for students of marked mathematical ability, and is open only to those who have taken second year algebra.

## GEOMETRY.

- 1. Plane Geometry. One year. Careful attention is given to construction, clear and logical expression, and above all to the attainment of the power to do original work in geometry. The exercises of the text-book are supplemented by constant suggestions by the teacher for investigations.
- 2. Solid Geometry, four hours a week, during the first semester.

# Trigonometry.

Plane Trigonometry, and a brief study of Logarithms and the solution of the Right Spherical Triangle, four hours a week, during the second semester.

#### DRAWING.

#### First Year.

Ten hours a week.

**Freehand Drawing:** First Semester—Elementary line work from geometric solids and simple natural objects.

Second Semester, advanced line work in pencil from casts and still life, flat wash in black and color.

### Second Year.

Ten hours a week.

Instrumental Drawing: First Semester—Linear drawing, simple geometric problems, lettering.

Second Semester, advanced geometric drawing, conic sections, projections.

## PHYSICAL EDUCATION

Systematic class work. This consists of vigorous drill with dumb bells, clubs, bar bells, etc., for the men; for the women, general development exercises in walking and running, simple, free movements, recreative games and outdoor sports. Required of all first year students. Four hours a week.

Progressive graded work on various pieces of gymnastic apparatus, mat work and gymnastic games for the men; more difficult free movements, relaxing exercises, mat work, walking, drill, and dumb bells and games in the open air for the women. Required of all second year students. Four hours a week.

### SCIENCE.

# Biology.

Botany and Zoology, each given as a full course of eight hours per week, for one year. The work in each is a combination of laboratory study, lectures and recitations, with a careful notebook record of the work actually done by the student under the direction of the teacher. The ground covered and the methods employed are such as fully meet the requirements of any college to which the student might desire to go.

# Chemistry.

The subject of Chemistry continues throughout the year, and includes all the general principles theoretical and practical of inorganic chemistry, such as given in McPherson and Henderson, Elementary Study of Chemistry. Recitations and individual laboratory work occupy not fewer than seven hours per week. A special effort is made throughout to develop the scientific habit of thought and to lead the student to observe the chemical changes constantly taking place. In the laboratory each student is furnished with a desk and all necessary reagents and apparatus, and is required to keep a complete record of the work done during the year.

A laboratory fee of eight dollars per semester, and an additional deposit of five dollars is required. The loss by damage or destruction of apparatus will be deducted from the deposit of five dollars, and the balance refunded at the close of the semester.

# Physics.

This course is designed to give the student a familiarity with the principal facts, laws and theories of Physics. This is accomplished by the careful study of a text and definite laboratory work for one year.

## CATALOGUE OF STUDENTS

#### COLLEGE OF LIBERAL ARTS

The names of students are followed by the designation of their several classes (G., Graduate Student; Sr., Senior; J., Junior; S., Sophomore; F., Freshman; Sp., Special Student; U., Unclassified); the name of each student is followed also by an abbreviation indicating the degree for which he is a candidate, (A.B., Bachelor of Arts; B.S., Bachelor of Science; A.M., Master of Arts).

Ackerman, Ruth Lovilla.....F., A.B....Los Angeles

,	,		
Adams, Lucy Burwell	F.,	A.B	Los Angeles
Adamson, Jessie Alvira	S.,	A.B	Los Angeles
Adkinson, Katherine Wiley	S.,	A.B	Riverside
Allan, Roy Folger	J.,	A.B	Los Angeles
Allen, John A			
A.B., University of	f Ne	w Brui	nswick.
Allen, Lawrence W	F.,	A.B	Los Angeles
Allin, Ray Lester	S.,	B.S	Pasadena
Amis, Anna Joyce	S.,	A.B	Los Angeles
Anderson, Frances Willard	F.,	A.B	Corcoran
Anderson, Hallam Hans	F.,	B.S	Los Angeles
Arakawa, Masuhiko			
Arnold, Ernest Leroy	F.,	A.B	Redlands
Atwood, Mary Emily	S.,	A.B	Monrovia
Avery, Emma Louise			
Ayers, Lucile Jane			
Ayres, Arthur H	G.,	A.M	Upland, Indiana
A.B., Central Ho			
Bach, Welcome Lawrence	J.,	A.B	Ocean Park
Bachtell, Paul Bradshaw			
Bailey, Richard Kenneth	J.,	A.B	Los Angeles
Baker, Florence Blair	F.,	A.B	Los Angeles
Ball, Bessie	Sp.	*********	Downey
Bangle, Leah Catharine	F.,	A.B	Long Beach

Bamesberger, John G	F., A.B	Long Beach
Barnhart, Percy Spencer	Sr., A.B	Los Angeles
Barrett, Roe Mitchell	S., A.B	Los Angeles
Basore, Carmon Cecil	F., B.S	Pasadena
Bassett, Helen Requa		
Bates, Alice L		
Beach, Everett, Charles	Sr., A.B	Los Angeles
M.D., Baltimore		
Beal, William Wilson	Sr., B.S	Gardena
Beanblossom, David William.		
Behymer, Enid Lynn		
Behymer, Elsie Olive	Sp	Los Angeles
Benkert, Robert		
Benny, Leulah Blanche		
Benson, George Perry	F., B.S	Glendale
Benson, M. Faye		
Berryman, Olive Perkins		
Bien, Beulah V	Sr., A.B	Los Angeles
Bill, Leone Marjorie		
Bingham, Beatrice Josephine.	F., A.B	Los Angeles
Birdsall, Harriet E	U., A.B	Los Angeles
Blair, Maurice G		
Blewett, Grace Marie		
Blumenberg, Clara	S., A.B	Los Angeles
Blythe, Minor	Sp	Los Angeles
Boardman, Lus M	S., B.S	Santa Monica
Bobey, Harry G	Sp	Los Angeles
Bogart, Lawrence E		
Boland, Mary Ellen	F., A.B	Los Angeles
Boller, Stanley	Sr., A.B	San Luis Obispo
Bomhoff, Grace Evelyn	F., A.B	Los Angeles

A.B....Los Angeles

A.B....Los Angeles

B.S....Los Angeles

A.B....Los Angeles A.B....Los Angeles

A.B....Los Angeles

A.B....Los Angeles

A.B....Los Angeles

Bostlelman, Amalie Johanna.....F.,

Bostwick, Florence Fern.....S.,

Bostwick, Norris ......S.,

Bouelle, Frank A......U.,

Bowers, Alice Teresa......S.,

Bowers, Evelyn Cummings......J.,

Dan and Common Daniel	172	A.D.	C
Bragonier, George David			South Pasadena
Brallier, Mrs. Mary Reber			Lewisburg, Pa.
Brewer, Elizabeth A			Los Angeles
Bridges, Ruth Gladys			Los Angeles
Briggs, Esther Montgomery			Los Angeles
Britton, Caroline Marguerite			Los Angeles
Brode, Alverda June			Los Angeles
Brode, Lawrence Partridge			Los Angeles
Brooks, Donald Beresford			Pasadena
Brooks, Harold Bissell			Erie, Penn.
Brown, Arthur C	U.,		Los Angeles
Brown, Maggie J. E			Los Angeles
Brown, James Lorin			
Brown, Laura Elizabeth			
Bruckman, Clara L			
Bryant, John Scott			
Buehner, Valentin			
A.B., Stanfor	d Un	iversity	
Bulkley, Paul	U	A.B	Los Angeles
Burk, Earl Elihu			Los Angeles
Burdick, Ruth Josephine			Los Angeles
Burleson, Frank Edward			Los Angeles
Burmaster, Huston William			Muncie, Indiana
Burmaster, Laura Elise			Los Angeles
Burnight, Lillian Alice			Redlands
Butler, Ruth Frances			Los Angeles
Butterfield, Oliver McKinley			Chino
Cain, Gertrude Belle			Los Angeles
Call, Ara Vickrey			Los Angeles
Calvert, Cecil			Los Angeles
Campbell, Harold Harrison			Hawthorne
Candee, William Horace			Hollywood
Canfield, Alta Naomi			Whittier
Canfield, Della Leila			Whittier
Carroll, Frank			Gardena
Carson, Joseph Randall			Hollywood
Carter, Jessie Merle			Los Angeles
Caster, Grover V.			Whittier
Chaffee, Frank Everett			
Chance, Flank Everett	I'.,	41.D	rasadena

Chaffee, Ralph Horace	F A.B.	Wattshurg, Pa
Chamberlin, Albert Frank	F., A.B.	Pasadena
Chambers, Rofena Belle		
Chambers, Walter Lovell		
Chapman, G. Arthur		
Charles, Helen		
Christopher, Edward Linn	I B.S	Lankershim
Christopher, Edward Linn Cist, Mary Elizabeth	S. A.B	Los Angeles
Claberg, Clay	F., A.B.	Santa Paula
Clardy, Grady		
Clark, Alice B		
Clark, Lynn		
Clark, Lola Bliss		
Clay, Jennie Carlie		
Clayton, Harry		
Cocks, Edna Agnes	Sr. AB	Willows
Cohn, Thomas Martin	F. AB	Los Angeles
Coleman, David	F BS	Los Angeles
Collins, Laura Alice	II AB	Los Angeles
Collison, John Clyde	G A M	I os Angeles
A.B. University of		
•		
Consigny, Venita Ormsby	S., A.B	Los Angeles
Cone, Ruby Vernell		
Conzelman, William Lewis		
Cook, Clarence Westgate		
Cook, Florence Marie		
Cooper, Carl Vincent		
Cooper, Judge		
Cooper, Leslie Judson		
Coplin, Josie Eva		
Corbin, John Walker		
Corey, Ida May		
Coykendall, James Marion		
Crinklaw, Charles Brooks	S., A.B.	Oxnard
Crocker, Roy P.		
Cronemiller, Flora May		
Crossman, Ralph		
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Crouch, Virginia FCrowley, Harry Arthur	U., A.B	Los Angeles

Dale, Ruth Florence	Sr., A.B	Treton, Iowa
Dalton, Margaret Elizabeth		
Davenport, Allen George		
Davidson, Joseph George	Sr., A.B	Long Beach
Davis, Robert Stephens		
Day, Florence Beatrice	F., A.B	Anaheim
de Bey, Joanna Marie	F., A.B	Hollywood
De Camp, Lura Marie	S., A.B	Los Angeles
Dexter, Earl Francis	S., A.B	Riverside
Drakin, Stanley McClure	F., A.B	San Diego
Dick, Samuel Finley	Sr., A.B	Glendale
Dickens, Maude E		
Dickerson, Ella J	F., A.B	Redlands
Diels, Harry Alvin	F., A.B	Fremont, Nebr.
Dimmick, Walter Lloyd	J., B.S	Óxnard
Doty, Lawrence G	U	Los Angeles
Douglas, Maud E.	U., A.B	Los Angeles
Dowds, Roy Wilson	I A.B	Los Angeles
Dragstrem, Rolla Henderson	Sp.	Waynesville, Ill
Draper, Ella Martin	Sr., A.B	Ontario
Dresslar, Martha	S A.B	Los Angeles
Dull, Florence De Ette	U A.B	Los Angeles
Durfy, Leland James	F BS	Sherman
Eaton, Arthur Lincoln	S. A.B	Los Angeles
Eaton, Ralph J	F B.S.	Los Angeles
Eccleston, Earle Stevens		
Edson, Katharine	Sn.	Los Angeles
Edwards, Lyman Elmer	G	Los Angeles
Ph.B., Drake		
Eklund, Ernest E	F., B.S	Los Angeles
Elliott, Harry Charles	J., A.B	Fullerton
Elwood, Roby Theresa	U., A.B	Alhambra
Erwin, Douglas James		
Ewing, Carl P		
Felker, Anna Mary		
Felts, Clare	F., A.B	Hollywood
Ferguson, Catherine Louise	J., A.B	Los Angeles
Ferguson, Margaret	F., A.B	Alhambra
Ferguson, Maude M	Sr., A.B	Los Angeles

Field, Clara L	Sp.		Los Angeles
Finch, Mildred Ruth			
Fisher, Ruth L		A.B.	Los Angeles
Fitch, Frank Brewer		A.M.	Los Angeles
Fletcher, Katheryn			East Highlands
Foell, George	, ,		Hollywood
Franklin, Edwin Clay			
Fredenburg, Pauline			Gardena
Freeman, Cora B.			
Freeman, Ernest Irven			
Gantz, Flo Allene	S	A.B.	Los Angeles
Garrett, Mrs. Mazie Fullman			Los Angeles
Gates, Austin B			Alhambra
Gates, George David			Alhambra
Gaud, Margaret			Los Angeles
Gerard, Beulah Elinor			
Getty, Jean Paul			
Gholz, Edwin LeRoy			
Gholz, Walter Irvin			
Gilbert, Howard Eugene	S.,	A.B	Compton
Gildey, Dorothy	J.,	A.B.	Los Angeles
Gilson, Lewis Edward	S.,	A.B.	Los Angeles
Glockner, Lulu Gertrude	U.,	A.B.	Los Angeles
Godbe, Earl Thompson	S.,	A.B.	Los Angeles
Gooch, Leona	F.,	A.B.	Rivera
Good, Rita Catherine	F.,	A.B	Fullerton
Goodsell, Joy G	J.,	B.S	Tropico
Gosnell, Ruth Evelyn			
Gould, Jesse A	S.,	A.B.	Los Angeles
Goulet, Frank X	U.,	A.B.	Los Angeles
Gower, John T		B.S	Hollywood
Graetz, Norma Marie		A.B.	Los Angeles
Grant, Louise			Los Angeles
Gray, Albert William			
Gray, Lester Marion			
Grainger, Kyle Z			
Grant, Agatha C	S.,	A.B.	Los Angeles
Gregory, Mrs. Mabel C	U.		Los Angeles
Guerrero, Carlos Tomas			_
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Guice, Mae Willard			
Haddock, Guy Randolph			
Halfpenny, Ida Belle	Sr.,	A.B	Ontario
Hall, Boyden G			
Hall, Charles Walter			
Hall, Walter Alexis			
Hamilton, Arthur Philip	F.,	A.B	San Pedro
Hampton, Lorenzo Arnie			
Hanna, Tacie May	Sr.,	A.B	Colton
Hannahs, James Ray	Fr.,	A.B	San Jacinto
Hansen, Julius	Sp.		Fresno
Harris, Ethel Cordelia	S.,	A.B	Compton
Hasegawa, Shinichiro	U.,	A.B	Los Angeles
Haskell, Donald Benjamin	F.,	A.B	Los Angeles
Hatch, William Henry	S.,	A.B	Whittier
Hatfield, Clara C			
Hawk, Helen Marie			
A.B., University of	South	iern C	California.
Hazzard, Helen Gveta	F	A B	Whittier
Hearne, Edith Irby	,		Long Beach
Heizman, Edwin H			Los Angeles
Henderson, Carl Rankin			Los Angeles
Henderson, Randall Thomas			9
Henry, George W	,		
Henshey, Howard Blair			
Hepner, Walter Ray			Covina
Hess, Gladys F			Los Angeles
Higgins, David Jordan			Pasadena
Hill, Arthur Louis			Los Angeles
Hitt, Eleanor			Los Angeles
Hoashi, Riichiro	Sp.		Los Angeles
Hodgdon, Frances Ellen	F	A.B.,	Whittier
Hogoboom, William Coryell			
Hogsette, Grace Wise			
Hollan, Margaret Frances			
Holleran, Nora	U	A.B.	Los Angeles
Holmes, Dora A			
Horstmann, Elsa Henrietta			
M.D., University of			O O
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Hough, Henrietta		
Houghton, William Q	Sp.	Rivera
Hughes, Blakeney W	F.,	
Hughes, George Addison		Venice
Humeston, Harold Bruck		
Hummel, Edward John	S.,	A.BLos Angeles
Humphrey, Helen Rosebrook.		
Hunter, Fanny		
Hunter, Graham Burgess		
Hurst, Florence Louise	Sr.,	A.BLos Angeles
Huston, Luther Allison	J.,	A.BTacoma, Wash.
Hyne, John Raphael	F.,	B.SOceanside
Iliff, Ruth Margaret	Sr.,	A.BWhittier
Ingalls, Everett A		
Innes, Robina Ann		
Inwood, Grace Agnes		
Jackson, Herbert Ladd	S.,	B.SHollywood
Jackson, Wayne B		
Jacoby, Arthur David	F.,	A.BLos Angeles
James, Everett Rockwell	Sr.,	A.BHollywood
Janes, Errol Prosser		
Jeffers, Anna T	Sp.	Los Angeles
Jessup, Mary Catharine		
Johnson, Eda Lydia		Los Angeles
Johnston, Helen Allegra E	F	
Johnston, Inez		
Jones, Elizabeth T. E	F.	A B Pasadena
Kaprielian, Michael Caspar	S.,	B S France
Kast, Emma Johana	 F	A B Los Angeles
Keeney, Florance Alice L		
Kellar, Mary Jane	<sub>E</sub> 1.,	A B Los Angeles
Kellar, Stewart	Ξ,,	R S Los Angeles
Kettler, Anna Marguerite	F.	A B
Kienle, John Emmanuel	r.,	A B New Orleans I
Kingcade, Lily	u.,	A P Long Death, La.
Kirchhoffer, Richard Aenslie		
Knopf, Carl Sumner		A.BLos Angeles
Knott, James Proctor		
Koho, Fujisawa	F.,	B.SLos Angeles

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McEuen, William Wilson			
McFarland, Harry Blaine			
McGorray, Jeannette		_	
McGregor, Mae Kathleen			
McLaughlin, Robert Delamer			
McManis, Maude Edith	,	A.BLos Angel	
McNicoll, Murdock Milton	,	A.BSalmon, Idah	
McNutt, Merle Scott		A.BGlenda	
McQuigg, Harry		A.BLos Angel	
McSweenq, Margaret Mary		A.BEl Mon	
McSweeney, Nellie	,	A.BLos Angel	
MacDonald, Catherine Helen.		A.BLos Angel	
MacLaughlin, Anna Wood		A.BLos Angel	
Magnuson, Torsten Alexis		A.BPasader	
Mahoney, Clarence Henry		A.BLos Angele	
Malan, Martha Angeline		A.BBrawle	_
Malan, William Edward		A.BBrawle	и.
Malcom, John Sheldon		A.B Long Beach	
Maltman, Clara Alberta		A.BLos Angele	
Maltoon, Everett Warren		A.BLos Angele	
Manatt, Hazel Morgan			
Mandeville, Ira Leckie			
Mann, Ernest Lee			
Mapel, Marguerite Carrie		A.BHollywoo	
Mapel, Mary Eleanor			
Marchant, Arte Stanage			
Marsh, Edward Anthony			
Martin, Charles Emanuel			
Martin, Leonard Camburn			
Masser, Harry Lascelles			
Matheson, Ruth			
Mathis, Edith Elizabeth			
Mathis, Mabel Catherine			
Maulsby, Leora Fern			
Mauzy, Wayne Churchill			
Mayooender, Tarah C	Sr.,	B.SBolagarh, Ind	ia
Mee, Ethel Louisa	U.,	A.BLos Angele	es
Mennet, Juanita Inez	F	A.BLos Angele	es
Metcalf, Edward Newcomb			
wettan, Edward Newcomb	J.,	A.DDos Aligere	-3

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Merithew, Lyle LeRoy		A.B	Binghamton, N. Y.
Michaelis, Esther		A.B	Somerset
Michod, Mrs. Else M			Los Angeles
Mitchell, Fred Leroy			Ontario
Mitchell, Harry			Ontario
Moberly, Walter Roy	Sr.,	, A.B	Los Angeles
Monteleone, Joseph	J.,	A.B	Los Angeles
Montgomery, Wayne Warren			Simi
Moody, Alice Lucile	F.,	A.B	Alhambra
Moody, Egbert Earl	J.,	A.B	Ontario
Moore, Camille Anna		A.B	Los Angeles
Moore, Clark Alphonso			Whittier
Moore, Harry James		A.B	Los Angeles
Moorhead, Gladys Evelyn	F.,		Los Angeles
Morrow, Clyde H			Glendale
Morrow, Ray Leslie	F.,	A.B	Glendale
Muller, Sarah Margarethe	F.,	A.B	San Pedro
Mulvehill, Walter William	S		Jeannette, Pa.
Murphy, Loretta	F.,		Los Angeles
Murphy, Ralph Elder	S.,		Los Angeles
Murray, Virginia	F.,		San Gabriel
Mutthauf, Luie George	F.,		Los Angeles
Myers, Edith Marie Marshall.	J.,	A.B	Los Angeles
Najai, Tasaburo	Sp.		Shimotsuke, Japan
Nave, Junia	S.,		Los Angeles
Neighbours, Sidney Webster	F.,		Los Angeles
Nelson, Elizabeth			Arroyo Grande
Newell, Kenneth Cuthbert	F.,		Pasadena
Nichols, Loyd Patterson	Sr.,	A.B	Ogalalla, Nebr.
Nichols, Margaret Cable		A.B	Glendale
Nixon, Charles Edward	Sp.,		Los Angeles
Noble, Dora Ursula	F.,		Los Angeles
Nuffer, Grace Amelia		A.B	Whittier
Nunamaker, Mabel Winnifred	U.,	A.B	Los Angeles
Oakley, Elizabeth M	U.,	A.B	Los Angeles
Oerter, Marjorie	U.,	A.B	Santa Monica
Ohara, Tomokichi	S.,	B.S	Los Angeles
Ohno, Noochika	G	A.M	Los Angeles
Olmsted, Harry Francis	S	RS	I on Angeles
,	,	20.0	Los Aligeles

Olver, Manley DeForest			Los Angeles
Olver, Violet Corrine			Los Angeles
Owen, William Otway C		B.S	Washington, D. C.
Oxnam, Garfield Bromley			Los Angeles
Oxnam, Lois		C	Los Angeles
Palmer, Bertha Louise	Sr.,		Compton
Palmer, Ethel Martha		A.B	Compton
Palmer, William Judson	J.,		Pasadena
Parker, William Roscoe	S.,	A.B	Los Angeles
Parks, Elizabeth Florence	J.,	A.B	Los Angeles
Parmelee, Florence	S.,	A.B	South Pasadena
Parmenter, Charles Leroy	G.,	A.B	Los Angeles
Pasko, Ruth Mateline			Los Angeles
Patterson, Clova Floyd			Parlier
Paulin, Harold David			Brentwood Park
Paulson, Archie Martin			Los Angeles
Peck, Claud Elwood			Los Angeles
Perkins, Voltaire DuBack	,		Ashland, Wis.
Perry, Robert Blakeley			Fullerton-
Pesqueira, Claudina			San Fernando
Peterman, Russell Wallace			Los Angeles
Peters, Mrs. Lulu Hunt	Sr	A B	Los Angeles
M.D., University of			
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Phillips, Clifford Henry	S.,	A.B	Pasadena
Phillips, Harry Francis	J.,	A.B	San Pedro
Poggi, Mary Josephine	F.,	A.B	Pasadena
Potter, Clyde Harlow	F.,	A.B	Los Angeles
Powell, Edna McClung	Sp.	,	San Fernando
Powell, Mary Irene	J.,	A.B	San Fernando
Pressman, Lillian Elizabeth			Los Angeles
Price, Harry Carr	F.,	B.S	Los Angeles
Prince, Claude R		A.B	Los Angeles
Ranson, John Roy			Cleburne, Texas
Rathke, Clark			Spokane, Wash.
Reberger, William	,		Moneta
Record, Arthur Willard			Los Angeles
Record, Helen Alden			Los Angeles
Reed, Burt Warren			Los Angeles
Rice, Loren Benton			Los Angeles

DI I D I D I		A.B. C. 4- Davila
Richardson, Frank Robert		A.BSanta Paula
Richardson, Grant		
Rickershauser, Susie Myrtle		A.BLos Angeles
Riggins, Laurelle Marie		A.BLong Beach
Robinson, Irene	S.,	A.BEl Toro
Robinson, William Wilcox	F.,	A.BRiverside
Robson, John Stanley	S.,	A.BLos Angeles
Rodda, Myron Lewis	F.,	A.BVenice
Roe, Marinita Bispham	U	A.BLos Angeles
Rogers, John, Jr		A.B
Roome, Harry Verrinder		B.SLos Angeles
Root, Elizabeth Anita		A.BLos Angeles
Root, Frances Fessenden		A.B Long Beach
Rosenthal, Louis Isaacs		A.B. E. Las Vegas, N. M.
Rowan, Fannie F		Los Angeles
Rowett, Richard Ruthdge	-	A.B Long Beach
Rublee, Kenneth Russell	,	A.BLos Angeles
Ruschhaupt, Theo. Augustus		A.BFresno
Russell, Raymond Robert	-	Los Angeles
Ryan, Bernice Lorane	. ,	A.BLos Angeles
Ryan, Sylvia Nigel		
Sakai, Kanyu		B.SLos Angeles
Sakaiyawa, Frav		Los Angeles
Sakamoto, Giko	F.,	A.BLos Angeles
Sands, Winifred	U.,	A.BLos Angeles
Saverien, Arnold Egerd		A.BLos Angeles
Saxe, Walter E	F.,	A.BLos Angeles
Schabarum, Pedro Karl	F.,	B.SLos Angeles
Schreiner, Fred Hartenstine	F.,	A.BLos Angeles
Scott, Alice Edith	S	A.BLos Angeles
Scott, Benjamin David	Sr	A.BLos Angeles
Scott, Evelyn	,	A.BLos Angeles
Scott, Ruth Elizabeth		A.BHollywood
Seal, Luetta Clarissa		A.BRedlands
Seccombe, Clinton Fisk		Los Angeles
Seeley, Florence	-	A.BMt. Pleasant, Iowa
Sesma, Ramona Mary		
Shearer, Clarence Allen		
Sherman, Mary Bradley	U.,	A.BOcean Park

Sherwin, Ruth Estelle			Los Angeles
Sherwin, William Albert			Los Angeles
Shillington, Edna Pearl			Oxnard
Shoaff, Paul Stevenson			Los Angeles
Shonerd, Roscoe Edwin			Springdale, Nev.
Short, Frank H., Jr			Fresno
Shutt, Herbert A			Pasadena
Sidey, Ruth Marenus			Los Angeles
Sinclair, Adelyn Jeanne		A.B	Los Angeles
Sinclair, Roscoe	J.,		Los Angeles
Single, Forrest Edwin	F.,		Stockton
Skilling, Helen Walker	F.,	A.B	Soldiers' Home
Skinner, Carl N	F.,	A.B	Los Angeles
Sloan, Winifred N	S.,	A.B	San Bernardino
Smart, Esther Winnifred	S.,	A.B	Ontario
Smith, Calvin Roy	F.,	A.B	Los Angeles
Smith, Frances Irene		A.B	Los Angeles
Smith, Gladys Marilyn	S.,	A.B	Los Angeles
Smith, Linton Hinds	F.,	B.S	Los Angeles
Smith, Lillian			
Smith, Margaret Horrell			
Smith, Ruth Cordry	S.,	A.B	Los Angeles
Snyder, Edward Charles	F.,	A.B	Los Angeles
Snyder, Esstella May	S.,	A.B	South Pasadena
Sowden, Grace Evelyn	J.	A.B	Los Angeles
Sowden, Nellie Margaret			Los Angeles
Sparey, Albra Leota	Sr.,	A.B	Los Angeles
Spaulding, Albert Burrows	F.,	A.B	Huntington Park
Speicher, Maude M			Los Angeles
Spencer, George Bishop	F.,	B.S	Sherman
Spencer, Howard Herbert			
Spinks, Leon			
Squires, Alma Markella			
Stark, Russell Earl			
Steffy, Eva Pearl	Sr.,	A.B	Santa Monica
Stephenson, Clara Crockett			
Sterry, Nora			
Stevens, Delight Norton			
Steward, G. Aurelie			
broward, G. Hurene	,	21.D	T unci ton

Stine, Richard Waldo	S	AB	Los Angeles
Stone, Ruby Cornelia			Waucoma, Iowa
Stonier, Harold James			Nipomo
Stranberg, Henry Herman	Sr		Whittier
Stringfield, Raymond Beverly.			Los Angeles
Swain, Frank Graham			Whittier
Swantek, Louis			Los Angeles
Swarts, Clifton Ray			Los Angeles
Sweet, Walter			Los Angeles
Summers, Shirley			Fresno
Summers, Eva Elizabeth			Los Angeles
Sumner, William Alvin			Los Angeles
Taft, A. Z.			Hollywood
Taft, Blanche Mildred	S.,		Hollywood
Taft, B. Y	F.,		
Taggart, Kathrine			Los Angeles
Tateishi, Jisaemon			Los Angeles
Taylor, Howard Corbin			
Thomas, Helen Lillian			
Thomas, Martha Agnes			
A.B., Greens	-:11 - 0	7 44	
A.B., Green	me (	College	ē.
Thompson, Edd G	J.,	A.B	Los Angeles
Thompson, Edd GThompson, William Ben	J.,	A.B	Los Angeles
Thompson, Edd G Thompson, William Ben Throop, Waldo G	J., J., S.,	A.B A.B	Los Angeles Los Angeles Los Angeles
Thompson, Edd G	J., J., S.,	A.B A.B A.B	Los Angeles Los Angeles Los Angeles Los Angeles
Thompson, Edd G	J., S., F.,	A.B A.B A.B A.B	Los Angeles Los Angeles Los Angeles Los Angeles Los Angeles Los Angeles
Thompson, Edd G	J., S., F.,	A.B A.B A.B A.B A.B	Los Angeles
Thompson, Edd G	J., S., F., S., F.,	A.B A.B A.B A.B A.B B.S	Los Angeles
Thompson, Edd G	J., S., F., S., F.,	A.B A.B A.B A.B A.B A.B A.B	Los Angeles South Pasadena Los Angeles
Thompson, Edd G	J., S., S., S., F., Sp.,	A.B A.B A.B A.B A.B A.B A.B A.B	Los Angeles South Pasadena Los Angeles Fillmore
Thompson, Edd G	J.,S.,F.,Sp.,Sp.,Sp.,Sp.,Sp.,	A.B A.B A.B A.B A.B A.B A.B A.B A.B	Los Angeles South Pasadena Los Angeles Escondido
Thompson, Edd G	J.,S.,F.,Sp.,U.,S.,J.,	A.B A.B A.B A.B A.B A.B A.B A.B A.B	Los Angeles South Pasadena Los Angeles Escondido Santa Ana
Thompson, Edd G	J.,S.,F.,Sp.,Sp.,Sp.,J.,	A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B	Los Angeles South Pasadena Los Angeles Escondido Santa Ana Los Angeles
Thompson, Edd G	J.,J.,S.,F.,Sp.,U.,S.,J.,J.,	A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B	Los Angeles South Pasadena Los Angeles
Thompson, Edd G	J.,J.,S.,F.,Sp.,S,,J.,J.,J.,J.,	A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B	Los Angeles South Pasadena Los Angeles Escondido Santa Ana Los Angeles
Thompson, Edd G	J.,S.,F.,Sp.,J.,S.,J.,J.,F.,Sr.,	A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B	Los Angeles South Pasadena Los Angeles
Thompson, Edd G	J.,S.,F.,Sp.,J.,J.,J.,J.,J.,F.,Sr.,J.,J.,J.,	A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B A.B	Los Angeles South Pasadena Los Angeles

Vermille, Lee King	F	ΔR	Ocean Park
Vermilyea, Frances Doyle			Los Angeles
Vertress, May			San Jacinto
Volk, Kenneth Quenton			Los Angeles
Wade, Henry Nazer			
Walker, Edward Turner			Los Angeles
Wallace, Belle			Los Angeles
Wallace, Kenneth Clark			Los Angeles
Walters, Hazel Belle			Los Angeles
Walters, John Earl		A.B	South Pasadena
Walton, Lida Maude	F.,	A.B	Long Beach
Walton, Munroe Lawrence			Glendale
Warner, Willis Huxley			Huntington Beach
Waring, Ruth Ame			Alhambra
Watkins, Fred Arthur	F.,	A.B	Long Beach
Watkins, William H		A.B	Anaheim
Watson, Fern Leamah	S.,	A.B	Pasadena
Weatherhead, Arthur Clayson	nJ.,	A.B	Newberg, Ore.
Weaver, Chas. Raymond	S.,	A.B	Los Angeles
Webb, Hugh Rascal	U.,	A.B	Los Angeles
Webster, Mercy Anna		A.B	Pasadena
Webster, Mary Halleck		A.B	Los Angeles
Weir, Edith M	J.,		Los Angeles
Welch, Claude Lionel	U.,		Los Angeles
Wellborn, Mildred			Long Beach
Wells, George Randall	F.,	A.B	El Paso, Texas
Wenk, Elizabeth			Los Angeles
Werner, Gustav Adolp		A.B	Los Angeles
Weseloh, Emilie M			Orange
Wharf, Bess Willard			Olney, Ill.
Wheeler, Mildred Lucile			Pasadena
White, Frank Leslie	F.,		Rivera
Whitnah, Mildred P			Los Angeles
Whyte, James S	F.,	B.S	Los Angeles
Wickersham, Newton Wilmot	F.,	A.B	Los Angeles
Wilkinson, Roy Albert	J.,	A.B	Los Angeles
Willett, Grace Alice	G	A.M.	Los Angeles
A.B., University of			

Williams, Clinton WertcottU.,	A.M	Pasadena
A.B., Indiana Un	iversity.	
Reiche, Charles FS.,	A.B	Los Angeles
Rice, Nettie BelleU.,	A.B	Santa Monica
Williams, George HoweF.,	A.B	Penn.
Williams, Otis AlfredF.,		
Wilson, Robert DonaldS.,	B.S	Hull, Iowa
Winans, IsadoraJ.,	A.B	Los Angeles
Witherell, Edith HopeS.,	A.B	Los Angeles
Woertendyke, Howard PorterS.,	A.B	South Pasadena
Wood, Ella JaneF.,		Los Angeles
Wood, Glen FrederickS.,		Glendale
Woods, Richard PSr.,	A.B	Los Angeles
Woodsum, Anna VereS.,	A.B	Long Beach
Workman, Thomas EdgarF.,	B.S	Los Angeles
Wright, Lora MelessaG.,		Los Angeles
Wrisley, Pearl HaydenJ.,	A.B	Los Angeles
Wyman, Gertrude BU.,	A.B	Santa Monica
Yerge, Clyde ScottJ.,	B.S	Whittier
Yerington, AliceS.,	A.B	Los Angeles
Yip, Henry UF.,	B.S	Los Angeles
Young, Erle FiskeF.,	B.S	Los Angeles
Young, Eva LucileF.,	A.B	Los Angeles
Young, Mabel GraceS.,	A.B	Goleta
Zacher, Edwin FredF.,		
Zander, LucilleSr.,		
Ziegler, Ethel GraceJ.,	A.B	Anaheim
Zimmerman, Lestin HenryF.,	B.S	Riverside

### SUMMER SCHOOL-1910

Addison, Janney Thos. Anderson, Mary Baker, Mary Emma Ball, Edith Barnhart, Percy Spencer Beckett, Wilbur Archer Beckett, Francis Haynes Bigelow, Emma Lorinda Long, Emmet Stemen
Loomis, Ada
Lovelace, Katie Rosemond
Magnuson, Torsten Alexis
Martin, Leonard C.
McCarthy, Elizabeth Carroll
McCormich, Grace Edith
McGorray, Jeannette Irene

Bigelow, Irene Boller, Phil. Bonoff, Karl Marx Bostwick, Florence Fern Bostwick, Genevieve Bouelle, Frank A. Bowers, Alice Leilsa Blev. Florence Marion Brallier, Mrs. Mary Reber Brown, G. Frank Browning, Roberta Etta Chamley, Otto David Chelgrene, Silva Dora Christensen, Serena Paulina Claberg, Clay Cocks, Edna Agnes Cole, Eva Coleman, Barney Ellerton Collins, Laura Alice Coomber, Doris Patricia Cummings, Mrs. Ida Ella Doster, Fern Aliva Eaton, Ralph J. Eichhoff, Will Fallas, R. E. Florcken, Vera Foster, Emory Alfred Frendenburg, Mary Pauline Gesell, Arnold Lucius Given, Bess Marguerite Gould, Jesse A. Grant, Louise Hendren, Virginia Henry, George Horne, Walter Wilton Hough, Henrietta Huston, Robert A. Judkins, Florence Augusta Karr, Ethel Bernis Keeney, Florence Alice L.

Koll, Milton Lee Miller, Susie Edith Neff, Lawrence Wilson Oakley, Elizabeth M. Ott, Ellis W. Pratt, Evelyn R. A. Pratt, Marguerite Eugenia Price, Harry Price, Edgar Heaton Priss, John Lawrence Rebber, Leland Lester Reed, Wallace Allison Rees, Nannie Edith Record, Arthur Willard Reynolds, Ralph Whitney Rice, Nettie Belle Robinson, Ethel Margaret Rosenkranz, Lena Victoria Sakai, Kanyu Schabarum, Margueritte C. Schwab, Erma B. Simpkins, Florence Skinner, John K. Sparey, Albra Spicher, Mabel Stephenson, Hazel Thomas, Martha Agnes Thompson, Walter Lee Timmons, Robert Vande Goorberg, Wilhelmina Vermilion, David Vedder, Dwight Gregory Wallace, Donald J. Watkins, William H. Watson, Victoria Elizabeth Watson, Lavena Margaret Weseloh, Emilie M. Wyatt, Jane Werner, G. A. Wenk, Elizabeth

Wharf, Bess Willard Koll, Harvey Wm. Knoles, Stella Ellen Landreth, Lillian Maudee Liang, Hing Luen Windener, Margaret Ann Will, Ellender Wyman, Gertrude B. Yashima, Chingo

### PREPARATORY SCHOOL

### First Year

Baab, Emil Carleton Babcock, Fay Baker, Elmo R. Barrett, Burniss Wesley Beckett, Francis Bernays, Dorothy Caroline Bolton, Arthur Hugh Bowen, Mary Spencer Browning, Atala Wood Burgess, Stanley Kenneth Castellaw, Clemma May Chung, Won-Do Decker, Harold Johnson Dominguez Jose Herculano Ensminger, Dee Fuller, Mary Murriel Gabrielsen, John Hall. Hattie Lulu Kang, Burns Keeler, Velma Ruth Keay, William Thomas Kim, Arthur P. Kim, Alvin Y. Kinder, Evelyn Cannon Kinkaid, John Holland Lichtenthaler, Fred William

MacDonald, Esther Mary McManus, Maurice Matthew Morti, Hugh Albert MMason, Gilbertine Miller, Paul Burt Murao, Sieju Noll. Cecil Rae Ogborn, Gladys Henrietta Racheco, Angie Peebles, Dorothy Penner, Edmund Polkinghorn, John Walter Porter, Margaret Nettie Price, Charles Arthur Price, Mary Catherine Scott, Claud Selma, El Arbi Mark Stebbins, John Roderick Strong, Hazel Anna Taylor, Albert Taylor, Iulia Abbie Thomas, Edith Mary Torrance, Arthur Frederick Wallace, Frances Lee Walters, Ralph Littlejohn Walton, Florence Elizabeth Ward, Gladys Barrette Ward, Gladys Marrietta White, Ida May Wilber, Kenneth A. Wintrode, Isabel Wyatt, Emma Ruth Yum, Sylvan W.

#### Second Year

Allin, Helena Barlow, Gladys Anna Bigelow, Irene Chang, Wilbur K. Chapman, Llewellyn Sidney Childs, Beulah Clement, Hallowell Fernando Collins, Herbert Cook, Lois Frances Denlinger, Ross M. Dyar, Dorothy Margaret Dunsmoor, George Baright Earl. Harley Eddins, Carl Morton Edwards, Robert Thomas Finney, Walter Franklin, Mary O. Guthridge, Russell M. Hastings, Leona Edna Hardenburgh, Charles George Hill, Gladys Grace Hiscock, Eula Ewin Hubbell, Sadie Myra Kennedy, Mildred Frances

Long, Tirrell Lyman Lovelace, Kay Rosamond McManis, Nancy Priscilla McManus, Mark Desay Meeker, Leroy Ellsworth Myers, Ethyl Agusta Neuhart, Florence O'Neil, Emma Eileen O'Neil, Owen Evan Palmer, Mabel Caldwell Parker, Ernest Theodore Philbrick, John Van Ness Pinnell, Paul V. M. Pollard, Sybel Louise Priss, John Lawrence Shaffer, Grace Leone Smith, Frank Macpherson Smith, Wesley Vance Spencer, Chester B. U. Thode, Clarence William Vogel, Bert F. Westall, Frank Willcox, Lutie Louise Young, Harvey

## Third Year

Black, James Preston
Brodbeck, Mary
Brown, Nina M.
Coldwell, William Jackson
Castellaw, Homer J.
Chamlee, Archie
Chan, Edward Spencer
Chrysler, Everett Nelson
Clark, Loren Tompkins
Crabill, Hazel Dell

Fowler, Hazel Marjorie
Gilfillan, Jay Gould
Girdlestone, Charles Gilbert
Griffin, Herschel Raymond
Griffis, Charles A.
Harvey, Harriet Anderson
Haupt, William Frederick
Humes, Homer
Joslin, Marion
Kelley, Gorman Faye

Killion, Earle D. Lee, Andrew B. Locke, Charles Edward, Jr. Lovett, Mamie Lewis McManis, Edward Mead, Hazel Helen Miller, Edward Edwards Moles, Hazel Setitia Morrill, Lewis Lee Moses, Leigh Obear, William Frank Offenbach, Eloise Polk, Beatrice Addie Polkinghorn, William A. Reed, Leroy Reed, Ruel Lafayette Reiche, Clarence W. Reily, Ralph Gamble Schabarum, Margarita C. Scott, George C.

Scovel, Edith Lavinia Shafer, Leroy Vincent Snowden, Mildred Emma Sowden, Harry Spaulding, Irving M. Stabler, Dwight Wilbur Sterry, Philip Hood Strong, Mildred

Tedlock, Culley C.
Thompson, Ralph Sherman
Timmons, Robert
Vallely, Maria Clare
Vanderpoel, Theodore Lewis
Venable, Hazel
Ward, Benjamin

Wintrode, Henry Jacob Wright, Bert Wright, Todd Yashima, Chingo

## Fourth Year

Ayers, Loren William Beach, Justus Meadows Boyard, Gladys Freeman Boyle, Louis Morris Boynton, Fred Haywood Brown, G. Frank Brophy, Frank Burch, Marguerite Corneliussen, Frederick A. T. Chamberlin, Joie Louise Chung, Margaret Jessie Coomber, Doris P. Cosby, Albert Bemison Crowley, James Philip Dalin, Carl Oscar Dyer, Adrienne Ernestine

Earl. Carl Everette Ferrall, George D. Foster, Emory Alfred Gibson, Bernice Edna Gillelen, Lute Girdlestone, May Huston, Robert C. Knoles, Stella Ellen Lee, Pang Kwan Locke, Lydia Margaret Lusk, Edgar William Lyons, Emily Charlotte MacDonald, Gladys Rachel Meserve, Dorothy Annette Nichols, Marguerite Obear, Mary Katharine

Ordway, William Floyd Parker, Edwin Marion Quale, Fred Lorenz Rae, Charlotte Rees, Thomas Duncan Salsbury, Howard G. Scott, Otis Smith, Blake Stivers, Virginia Irene Thorne, Elsie May Tieman, Ida May

Vermilion, David Senton

Wallace, Donald Joseph Watson, Ernest Alfred Watson, William Homer Willcox, Vivian Elma Wyatt, Jane D.

## COLLEGE OF PHYSICIANS AND SURGEONS

#### Freshmen

Beck, Horace Richard
Blass, Mrs. Rosa Barney
Bonoff, Karl Marx
Brown, James Templeton
Cheesman, Harvey Rollin
Clayberg, Clay
Close, Katherine Margaret
Coleman, Barney Ellerton
Cox, Roy Milo
Craig, John Bryan
Cunnane, Philip John
Curl, Robert Latta

Drury, Edward
Felger, Louie
Hale, Nathan George
Harding, Henry Wilbur
Hegardt, Mrs. Nellie F. M.
Hemphill, Oscar Leon
Hibben, John Severy
Holdridge, Earl Ansel
Holleran, Walter M. (B.S.)
Horton, Jesse Chrisman
Jacoby, Arthur David
Lesem, Alexander Marx

McClurkin, Arthur Archibald McGilvra, Walter Vern Misch, Herman Moffat, Howard Lee Noot, William Ivor O'Donnell, Earl William O'Reilly, Edmund Francis Perry, Joseph Raymond Ranson, John Roy Rees, Clarence Edwin Ring, John Richard Rogers, Earl Leroy Rose, Homer DeWitt Rosson, Ray Wright Rothwell, Chester L. Scholz, Arnold Max Smith, George Francis Storkan, Joseph Charles Thompson, Roy Oliver Throop, Charles Bailey Wilson, Robert Donald Wyckoff, Harry A. (A.B.) Young, Chas. Stephen Zacher, Edwin Frederick Zorb, George Anthony

## Sophomores

Bames, Otto
Bell, Jr., Frank
Blake, Wendell Phillips
Bowers, Chester H. (A.B)
Carter, Ray Alden (A.B)
Chadwick, Benjamin Cole
Citron, I. Jesse
Dieterle, Karl Lional
Dunsmoor, Robert M.
Eisen, Edward George
Felch, Miner Frank
Fearon, William Max
Ginsburg, S. S.

Herrington, Frank James Jesberg, Simon Henry Kelley, Gilbert A. Kittle, Walter Francis Larzalere, Ray Verplank Lucey, Daniel D. McCrea, Agnes Benford Reeves, James Walter Sands, Raymond Arthur Shattuck, Alvin Schwartz, David D. Smith, Harold Wilbur

## Juniors

Ammann, Francis Xavier
Avery, Lewis Gorton
Boyer, John Ira
Charleston, Vernon Claude
Crawford, Mrs. Olive
Davey, Edgar Charles
Deakin, Stanley McClure
Flinn, Homer John
Foye, Frank Alonzo
Hall, Will E.
Hart, John Franklin
Hull, Foster Miller
Nelson, Fred Howell

Patric, Gladys Emilia
Riggs, Norman
Ronan, Richard Robert
Smart, Eliott Plummer
Stokes, William Ellis
Stone, Mrs. Clara
Stookey, Byron Polk (M.A.)
Thurber, Delos Packard
Thurber, William Grant
Wilson, Loren Everett
Yager, William Laurence
Young, Edgar Nelson

## Seniors

Abramson, Max Jacobs Boller, Phil (A.B.) Boyd, Wilbur Travis Cocke, John Vinton Collins, Ebert Caleb De Ville, Leon Domann, Arthur Henry

Genung, Mabel A.

Traughber, William Francis

#### Post-Graduate

Miller, Jr., J. L. (M.D.) Burrows, C. A. (M.D.)

## Special

Felsenthal, L. (D.D.S.)

### COLLEGE OF LAW

#### Freshmen

Allen, Donald Gillet Allin, Roy Merton Anderson, Edward Lewis Avers, Arthur Carlton Backus, Perry Francisco Bathey, Herbert Theodore Bell, Oliver William Belt, Clarence Leland Benjamin, Irvin Bernard Berkowitz, Louis Lawrence Berres, Dora Bettinger, John Marcus Black, Ira Woodruff Blair, Cassius Davis Blanchard, Lydia Blasdel, Gilbert C. Boyle, Lee Brady, Ernest Lasota Brassey, Rene Alexander Bridge, Collie Alton Brown, Lewis Harris Browne, Samuel Harrison Brown, Michael Forest Bruce, Ray William Brunk, Ira Leroy Brunken, James Johnson Bogue, Charles Bradley Bromley, Elmer Phare Burr, Clyde Russell Cain, Morris Allen

Casey, Walter Tivus Clark, Marcus Conant Cobb. Daniel Layton Colburn, John Wentworth Corenson, Sam Nathan Cox, William Lester Craig, John Joseph Crane, Burton Briggs Crawford, Samuel James Critchley, Daniel Michael Dawson, John Douglas Davis, Walter Dodson, Philip Fortunatus Donnelly, James Eberhard, Ray Charles Field, Edward Lewis Flowers, Leo August Foy, Mary Emily Frankel, Jacob Allan Frayne, Edward John Ganahl, Ernest Gleason, Hallie Earl Goldman, Harry Aaron Goodwin, Timothy Chester Goudy, Curtis A. Griffin, Charles Jack Guinn, Howard James Ham, Walter Asabel Hastings, James Neil Hazen, George David

Heid, Fred J. Heinecke, William Barker Henny, Vernon T. Heskett, Earl Clifton Hibben, Litta Belle Hill, Eugene Dalton Hill, Ivan Lawrence Hoppe, Arthur Frederick Hospital, Carmel Alfonso de Houge, Oscar W. Hughes, Thomas Raymond Hunter, Henry Allan Huntington, Henry Clifford Hyer, Grainger Iasigi, Herbert Loir Jack, Harry Meikle Jansing, Albert Clement Jones. Frank Henry Jordan, Edward Henry Kidd, Herbert West Killgore, Albert Russell Kittrelle, Richard Krowl, William Vreeland Lahey, May Darlington Lara, Fernando de Leary, John Peter Legerton, Curtis Clement Leighton, Hampton Roy Leonard, Leon Joseph Lewis, Fayette Arthur Ling, David William Little, Kirby Dalton Lusk, Edgar William Lyans, Robert Thompson Lyons, Harry Mack, Maethilda Eleanor Manning, Clarence Charles Mauzy, Wayne Churchill Miller, Earl Thomas

Milford, Albert Watts Mills, Simeon Wenban Mitchell, Archie Delwood Miyasaki, Motohiko Moodie, Joseph G. Moore, Gladys Mooslin, Constantine Mitchell Moran, Glenn Logan Motzkus, Henry Martin McCarthy, John Daniel McCormick, Frank Hubert McDowell, Alfred A. McDowell, Charles Edward McGonigle, John Leo McGrew, Raymond Morrison MacKnight, George Lee McNeil, Stanard Ambrose McPherson, Carlos Verner Neeson, John Arthur Normandin, Ovila Olson, A. Cecil Orme, William Wall Park, William Baxter Parker, William Roscoe Patten, Francis Alan Patten, James Longstreet Perrelet, Raoul Albert Pickering, Nora Helen Praeger, Lionel Arnold Price, Harry Carr Prince, John R. Radawitz, Henry Lewis Randles, James Duncan Ratzer, Carl Louis Reeves, Charles Merrick Rentch, John Carlyle Rogers, Ernest Elroy Rogers, Peyton Loring Rowett, Richard Rutledge

Sakim, Lewis Sampsell, Paul Warren Samuels, Charles George Sawyers, Wade Hampton, Jr. Schulman, Bernard Schumacher, David Homer Scott, Charles Elwood Seccombe, Clinton Fisk Shapico, Chaim Shapico, Paul Shattuck, Maud Stillwell Shearer, Clarence Allen Shears, Russell . Sherwin, William Albert Shipman, Benjamin William Shores, Rex Simpson, Dorothy Field Sims, James Henry, Jr. Skinner, Carl Newton Smith, Harold Ray Soloman, Irl Espy Spencer, Charles Edward Sproul, Joseph Plummer Stein, Joseph Julien Stephens, William Dennison Stockton, Absolum Henderson Taylor, Charles Edward Taylor, George Leslie

Taylor, Raymond Stickney Thompson, Mark Tolle, Frank Hayward Trageser, John William Turner, Spence Derrington Turney, Frank Bennett Turrentine, Lawrena Neil Twombly, Rolph Fred Versteeg, Chester J. Voorhees, Sherman Laucks Wadsworth, William Henry Webb, James Ellwood, Jr.

Wadsworth, William Henry Webb, James Ellwood, Jr. Webb, Richard Wentworth Welsh, John Henry Wessel, Bernard F. Whitney, Clyde Carl Whomes, Frederic Leon Williams, Eugene Dungan Wood, William Luther Woods, Richard Philips Woodworth, Clyde Cyril Woolwine, Louis McClure\* Wright, Jacob Marion Wussow, John Henry Yamatani, George Jilodo Young, Joseph Wesley Zacher, Edwin Frederick

\*Deceased.

## Juniors

Bacon, Christian Ott
Baird, Charles Roland
Baker, Charles Frederick
Baker, Ivan
Benkert, Robert
Blythe, Minor LaVerne
Bowring, Lynden Flash
Bowser, Vincent Eril

Brown, Joseph Edgar Burke, Pascal H. Cass, Phillip Cate, Clyde Elton Chandler, George Gregg Childers, Charles Leroy Church, Max A. Craig, Clarence Elliott

Daniels, Earl Martin Decker, Herbert Adolph Dennis, Alfred Earl Donnelly, Charles Edward, Jr. Dwelle, Harold Edward Ensley, Oliver P. Farman, Charles Hugo Foss, Floyd Samuel Parker Foster, Abram H. Gallegos, Rafael Maria Gates, Walter Solomon Geoffrion, Victor Oscar Gibbs, Elliott Gyger, Jesse Alexander Hanley, Robert Lawrence Hansen, Julius Harrell, Maxwell Henderson, Lewis Adams Herd, H. M. Hole, Morris Clifford Holton, Charles Rufus Hood, Randall John Houghton, William Lake Ingalls, Everett Alden Janeway, George Harold Johnson, Benjamin Herbert Keogh, John Francis Leake, Ellison Orin Leovy, James Gillmore Maddock, Robert E. Martin, Louie Frear MacDonald, Alfred Francis McDonnell, Thomas Matthew McEuen, William Wilson Mellen, John McD. Miles, John Cullen Miller, James Launtz Millikan, Charles English Mishler, Cassius C. Mitchell, Robert Mitchell, Robert Hatfield

Moeur, John Hubbard Moore, Arthur Donaldson Neilson, Iener Westring Noon, Ernest Eugene Padan, Charles Franklin Patrosso, Julius Victor Perkins, George William Peterson, Fred Eskild Phelps, Charles Richard Raymond, Emil Randall, Arthur Rosenkranz, Elias Victor Rouse, Albert Frank Russell, Raymond Robert Sale, Henry Theodore, Jr.\* Schwartz, Hyman Sellers, Benjamin Franklin Smith, Kenneth Snyder, William Cloyd Spalding, Thomas Richard Stevens, Walter Hayes Stillwell, Fred Charles Stuart, David Daniel Sumner, William Alvin Taggert, James Deacon Thomas, William LeRoy Travis, W. I. Tribit, Charles Henry, Jr. Trude, Fred James Tuttle, George Wilson Van Etten, Claire Trumbo Vaughan, Vincent Bibb Visel, Jack Angele Visel, Stanley Augustus Wackerbarth, Henry Owen Walker, Hugh Kelso, Jr. Whitehead, Lewis Emery Widney, Erwin Wilson Wilson, Chris, Jr. Wilson, Robert Gordon Wright, Alfred

<sup>\*</sup>Deceased.

#### Seniors

Allen, Clifton Royal Allen, Francis Edward Allen, John Sherman Backus, Earle Knowles Benedict, H. Stanley Chamberlin, Harry Audry Coleman, William Converse, Norris May Culver, Richard Joseph Curtin, George Rogers Decius, John Harman Dietrich, Edward Doherty, Frank Patrick Donnell, Horace Duggan, Frank Alphonse Durbin, William Reese Fairbanks, Frederick Cole Fitzgerrell, Ray Hartley Forward, Charles Hamilton Fujii, Sei Gardner, Chauncey Edgar Gault, Donald Green, Arthur William Haggart, Alex. McKenzie Hardy, Rex Giffen Hill, John James Hines, John Martin, Jr. Hyter, Sidney Samuel Ingle, Samuel Gordon, Jr. Jarrott, James Smith Jarrott, Robert Adams Kelley, William Pliny Land, Jesse Mearl Lawlor, Reed Morris

Leitch, Alexander Young Leonard, Raymond Anthony Lobdell, J. Karl Maurice, Guy Erhardt McDonald, Donald H. McMahon, John Joseph Miles, William, Ir. Montgomery, Plummer Multhauf, Christopher Joseph Musgrove, John Joseph Nolan, Edward James Norton, Richard Henry Nourse, Paul Parker, Elizabeth Yager Patten, Sarah Elizabeth Phelps, John Potter, Charles Guy Risdon, Frederick Ray Rivera, Robert Parfirio Robinson, Oliver Raynor W. Roberts, Ravid Berwyn Rosecrans, Leo Marmaduke Salzman, Maurice Shafer, Jesse Reno Showers, Victor Paul Stepper, Arthur Garfield Thompson, Roland Tolhurst, Louis Hodgman Tritt, William Winters White, Thomas Patrick Wheelock, Ray Hoover Wisdom, Earl Leslie Woolwine, Clare Wharton Whitworth, Walter

### Post-Graduate

Bagley, Charles Leland Bowers, Walter Chandler, Moses Hanna, Byron C. Helm, Gratz Wilson Hutt, James Miller, L. L. Schlegel, John

## Summer School, 1910

Archer, Allan Thurman Atkins, Charles Lewis Backus, Earle Knowles Benedict, Stanley Blythe, Minor LaVerne Brown, Joseph Edgar Brunk, Ira Leroy Cate, Clyde Elton Coleman, William Crawford, Samuel James Culver, Richard Joseph Donnell, Horace Duggan, Frank Alphonse Durbin, William Reese Ellis, Thomas Earl Frankel, Jacob Allan Gardner, Chauncey Edgar Hanna, Byron C. Hibben, Litta Belle Hood, Randall John Horton, Ray L. Hurd, H. M. Iasigi, Herbert Loir Jack, Harry Meikel Jarrott, Robert Adams Jordan, Edward Henry Kelley, Loyal Clair Kittrelle, Richard Lara, Fernando de Lobdell, J. Karl Martin, Louie Frear McDonald, Alfred Francis McDonald, Donald H.

McGonigle, John Leo McMahon, John Joseph Montgomery, Plummer Mooslin, Constantine M. Naugle, Harry David Nolan, Edward James Perkins, George William Phelps. John Potter, Charles Guy Risdon, Frederick Ray Rivera, Robert Parfirio Robinson, Oliver Raynor W. Rogers, Ernest Elrov Samuels, Chas. George Satterwhite, Walter Schulman, Bernard Schwartz, Hyman Sellers, Benjamin Franklin Shafer, Jesse Reno Showers, Victor Paul Spalding, Thomas Richard Stepper, Arthur Garfield Stuart, David Daniel Sumner, William Alvin Tolhurst, Louis Hodgman Travis, Washington Irving Tritt, William Winters Tuttle, George Voorhees, Sherman Laucks Welsh, John Henry Whomes, Frederick Leon Wilson, Robert Gordon Wisdom, Earl Leslie

### COLLEGE OF DENTISTRY

#### Freshman Class

Anderson, Harold
Andrews, Earl Robert
Bailey, Milton
Bedford, W. E.
Farwell, Gerald C.
Hale, Nathan
Holcombe, Jerry
Iwata, K.
James, C. W.
Kesling, E. C.
Langton, Geo. A.
Lynch, John
Nall, H. Bert
Nicholson, W. H.

Noxon, Herbert L.
Parker, J. T.
Powers, Geo. F.
Rohrbacher, E. C.
Ratliff, Clinton
Symmes, Carrick W.
Swift, Hugh M.
Schildwachter, Geo. H.
Siewert, A. D.
Turner, J. C.
Thomas, H. G.
Thompson, S. H.
Wells, R. B.

# Junior Class

Baumgardner, E. W. Cannon, Earnest E. Coldwell, R. L. Cram, Frank H. DeCow, Chas. L. Davies, Oliver W. Kelly, E. H. Nall, H. W. Nokes, I. D. Payette, A. A. Peden, Thos. R. Pool, C. H. Puckett, C. W.

Reid, E. C.
Russell, Clinton D.
Schweiger, Geo. F.
Sparks, P. A.
Straub, H. E.
Sutton, C. L.
Tanaka, Frank F.
Todd, G. C.
Wiggins, Chas. G.
Williams, Frank A.
Wilson, John M.
Yamaguchi, M.

## Senior Class

Algeo, Walter S. Bailey, H. Page Bidwell, H. H. Baskerville, Ralph Brownell, Lester G. Crawford, J. F. Crew, Leila Craven, E. A. Day, Chester A. Fukasawa, Harry J. Glassell, H. P. Henderson, M. M. Jackman, G. Floyd Jackson, A. C. Kelsev, Mark Kendrick, Jas. G. Maclin, John McCoy, John R. McElhaney, M. A. McKee, J. R.

Mitchell, Fred W.

Moore, Leon D. Moore, G. W. Nance, Ed. F. Pertson, Louis A.

Roberts, Earl K. Sargent, Rav Schildwachter, Harry Snipes, Thos. W. Smale, John Smith, John Smith, Hyrum G. Smithers, J. Edward H. Sunderland, E. Stover, W. T. Worth, C. E.

Yates, Ed.

### COLLEGE OF MUSIC

Aber, Ruth Avers, Lucile Barnett, Rena Backstrand, Lillian Bernays, Dorothy Bailey, Richard Ball, Bessie Black, Lena Boggs, Ina Boggs, Aura Binz, Maude Frances Brown, Stella Broadbridge, Martha Carpenter, Thankful Carson, J. R. Carson, Gladys Cannon, Laura Chamberlin, Joie Charles, Helen

Chase, Florence Chan, Katherine Cole, Florence Clark, Isabelle Clark, Agnes Clemmons, Eleanor Colvin, June Coyne, Ethel Creciat, Jennie Cummins, Edna Cooper, William Davidson, Esther Dinsmore, Lura Dinsmore, Marguerita Durst, Walter C. Dragstrem, Rolla Dovaine, Josephine Etz. Helen Elliott, Verne

Ellis, Leila Ferrahian, Mrs. Y. Ferguson, Margaret Freeman, Marcea Flick, Gertrude Fulton, Eleanor Hassler, Clara Harper, Julia Hirst, Harry Hogue, Eleanor Howland, Mrs. Hospers, Eva Humelbaugh, Mrs. A. C. Hunter, Fann Hollman, Mrs. J. E. Johnson, Elma Insley, Marguerit Kraemer, Amm Kuster, Mrs. E. G. Knesel, Florence King, Ula Lawson, Nellie Lancaster, Earline Locke, Ruth Lincoln, Bessie Mallory, Frances Maulsby, Fern Mattoon, E. W. Mayer, Vera MacDonald, Catherine MacLaughlin, Anna W. McGill, Myrtle Melick, Lillian Mennett, Juanita Meneley, C. Miller, Mrs. W. A. Miller, Frances Meyers, Chalmers Murdock, George

Moore, Virgie Lee Murphy, Loretta Nave, Junia Neuhart, Florence Osborn, Winona Ormsby, Carrie Ogborn, Gladys Paulin, Ollie Palmer, Edith Pezzoni, Millie Poggi, Ruby Price, Ellen Prince, Verne Reiche, Charles Rathke, Mabel Rice, Percy Schultz, R. E. Sanders, Hazel Schoeller, Marjorie Smith, Ethel Smith, Leonard Sevier, Carrie Shields, Mildred Shillington, Edna Skilling, Helen Snyder, Evelyn Spencer, Sibyl Snedecor, Ada Spaulding, A. B. Stephenson, Clara Stephenson, Effie Sparey, Marjorie Stalker, Elsie Stone, Ruby Swain, Frank Travis, Adelaide B. Thomas, Helen Thomas, Edith Terry, Ebbie C.

Tucker, Myrtle
Taft, Mrs. L.
Trussell, Mary
Vignes, Edwine
VanBuskirk, Gladys
Venable, Hazel
VanAken, Gertrude
West, Ruth
Wheeler, Mildred

Walton, Florence Wrenn, Marie Wiles, Edna Wittie, Minnie Wildey, Fern Wilson, Justine Wright, Mary Maude Young, Mr. E.

#### COLLEGE OF FINE ARTS

Anders, Grace Anderson, Alfa W. Ashton, Ethel Barr, S. Mrs. Barron, J. D. Barton, Roberta Borum, Anna Bridges, Emma Brown, Fred Calla, S. Carter, Mrs. Mary Chancellor, Wilhelmina Chandler, Mrs. Edith Chaddock, Marion Conner, Iris Coulter, Mrs. C. H. Cronewett, Clara M. Cock, Alma Dent, Cladys Dye, Ethel Ellis, C. G. Eskirifge, R. Feigl, Arthur Fitch, A. L. Finney, Ruth Flippen, Jessie Foster, Elizabeth Foster, Francis

Gleason, Elizabeth Green, Mrs. C. E. Greenshaw, Ursula Gilchrist, Meda Grant, Lillian Halquist; Signe Harlan, L. Haynes, Marguerite Hipple, H. B. Hanlot, Leona M. Harvey, Harriett Hugus, Louisa B. Harlan, Mary Ingle, Henrietta Ishida, K. Jones, Florence Jones, Bertha Jordan, Dr. M. E. Kelsey, Margery Kaltmeyer, Hulda Lauman, Hester Langston, Lucy Lickley, Mrs. M. F. Lewis, Helen Lynell, Lena M. Lyon, James Martin, Ellsworth Meadows, Lorena

Maddox, Lelia Miner, Alice Moorehead, Theodora Macnabb, Mrs. J. E. Martin, Mrs. A. Newby, Mrs. R. Newel, Bertha Olson, Louise Palmer, Edith Pestor, Olive Peterson, Agnes Parmalee, Clara Price, Miss Price, L. S. Petrie, Adie Ross, M. E. Raphke, Mabel Russell, Mary St. Gaudens, Mrs. L.

Strickland, Mrs. C. S. Schmucker, Sara Sargent, Florence Sanborn, Fern Swartz, Eva Scott, Stella Speer, Etta Swift, Mrs. L. C. Thorne, Ina Takahasa, K. Towner, Xarifa Vignes, Marguerite Weaver, Mary Worsham, Helen Ward, Helen Wirz, Freda Wimer, Alice Wilson, Justine Wolfe, Lette

## COLLEGE OF PHARMACY

# Juniors

Brooks, Donald B.
Burns, Chas.
Benson, Frank
Burton, Lee C.
Chambers, W. L.
Fancher, Clark
Gant, Fred H.
Haines, Newell L.
Hartley, Harold
Kudo, Kananee
Jeffers, A. T.
Jolly, P. B.
Johnson, Ed.
Lindenbaum, Samuel
Masterson, Gus

Meiser, Geo.
Peloubet, Edith
Patton, Carl
Pole, W. C.
Prather, Virgil
Prewett, W. C.
Ridgway, Archie
Robinson, Clyde G.
Sinclair, S. Lunita
Shepherd, C. J.
Ting, Darwin
Thacker, Edna
Wentworth, L. H.
Wilhite, E. C.

#### Seniors

Bohlken, Geo. Browning, F. L. Cooley, Oliver Mazy, Eugene McGarvin, R. H. Morris, G. T. Drumm, C. M. Dutcher, A. J. Haygood, Paul Jewett, O. F. Kalliwooda, H. K. Pilcher, B. C. Pilcher, Theodore Schelling, Arthur Strait, Emma

## MACLAY COLLEGE OF THEOLOGY

## Junior Class

Bolton, Arthur H. Branton, Harry Brode, Alverda Chaffee, Ralph Cole, Walter B. Murakami, P. K. Sanderson, Nelson F. Stark, Earl Russell Worley, Mrs. R. E. (A.B.)

## Middle Class

Akimoto, K. Cooper, H. C. Kimora, A. Y. Shumway, Charles W. Smith, Harold J. Smith, W. Vance Stone, Mardiros K. Tamora, P. K.

## Senior Class

Clark, Howard B. (A.B.) Coyne, Robert J. Edward, Frank C. Fodr, Don S. (A.B.) Hilmer, Henry F. (A.B.) Ito, Heijiro Kienle, J. E. (A.B.) Perry, Esek H. (A.B.) Reberger, William (A.B.) Roberts, Chas. W. (A.B.)
Ross, Fred
Saylor, Oliver (A.B.)
Shepherd, Harry
Smith, Fred A.
Smith, George
Speight, William D.
Stewart, G. W.
Summers, W. L.
Talbott, E. Guy

#### COLLEGE OF ORATORY

#### Private

Allen, Don A. Amis, Joyce Arnold, Ruth Berryman, Olive Brown, Myrtle Browning, Fred L. Burch, Lucile Chemberlain, Fred Cole, Donald Cronemiller, Flora Converse, U. M. Crowell, Mrs. Minnie Delano, Grace Dickens, Mrs. Maude Ensley, Oliver P. German, Nita Hanna, Tacie Haver, Grace Hensel, Gretchen Hollister, Bertha Keeney, Florence La Fetra, Gladys

Long, Ethel Marshall, Ruby Marshall, June Metcalfe. Ethel Moses, Marian McComas, Ethel McDonald, Florence McGorray, Jeannette McKnight, Jas. S. Padan, C. K. Piper, C. E. Potts, Ada L. Preston, Alice Robinson, Irene Romig, Edith Ross, Fred H. Smith, F. A. Stivers, Virginia St. John, Anna L. Ward, Gladys Woertendyke, Mrs. J. H. Ziegler, Ethel

## Class

Amis, Joyce Arnold, Ruth Barlow, Hazel Berryman, Olive Benjamin, I. B. Branton, Harry Branton, Mrs. H. Brown, L. H. Brown, Myrtle Burdick, Ruth Burch, Lucile

Burgess, Stanley
Call, Asa
Cole, Mrs. O. M.
Cronemiller, Flora
Delano, Grace
Dickens, Mrs. Maude
Dick, Samuel
Everett, Edward
German, Nita
Gyger, H. A.
Hanna, Tacie

Hayer, Grace Henderson, Randall Huntington, Harry Hollister, Bertha Ito, Heijiro Keeney, Florence Keogh, C. E. Krowl, Wm. La Fetra, Gladys Lund, Pauline Long, Ethel Marshall, Ruby Marshall, June Metcalfe, Ethel Moses, Marion Murphy, Ralph McComas, Ethel McDonald, Florence Parker, Ernest Patrosso, J. V. Potts, Ada

Preston, Alice · Robinson, Irene Sanderson, N. F. Schwartz, H. Shepherd, Harry Skilling, Helen Spencer, Alvin Stewart, Geo. Sproul, J. P. Stivers, Virginia Stewart, J. D. Stark, Russell Stonier, Harold St. John, Anna Thompson, E. G. Wallace, Kenneth Ward, Gladys Watson, Fern Wheeler, Mildred Ziegler, Grace

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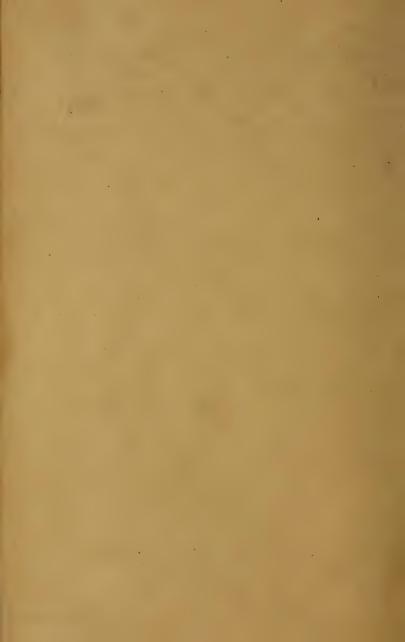
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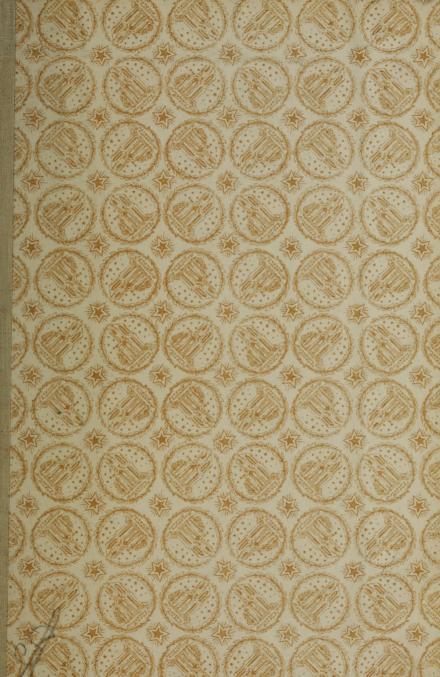












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